

NEW SPECIES OF PHYCITINAE (LEPIDOPTERA: PYRALIDAE) FROM THE DOMINICAN REPUBLIC

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Abstract.—Fourteen **new species** of phycitines collected in the Dominican Republic are described. They are: *Chararica circūimperfecta*, *Aptunga setadebilis*, *Aptunga vega*, *Aptunga culmenicola*, *Moodna antilleana*, *Caudellia pilosa*, *Varneria albiornatella*, *Ozamia plagata*, *Dioryctria postmajorella*, *Dioryctria dominguensis*, *Dasypyga independencia*, *Lascelina pedernalensis*, *Zamagiria rawlinsi*, and *Caristanius tripartitus*.

Key Words: moths, Pyralidae, Dominican Republic

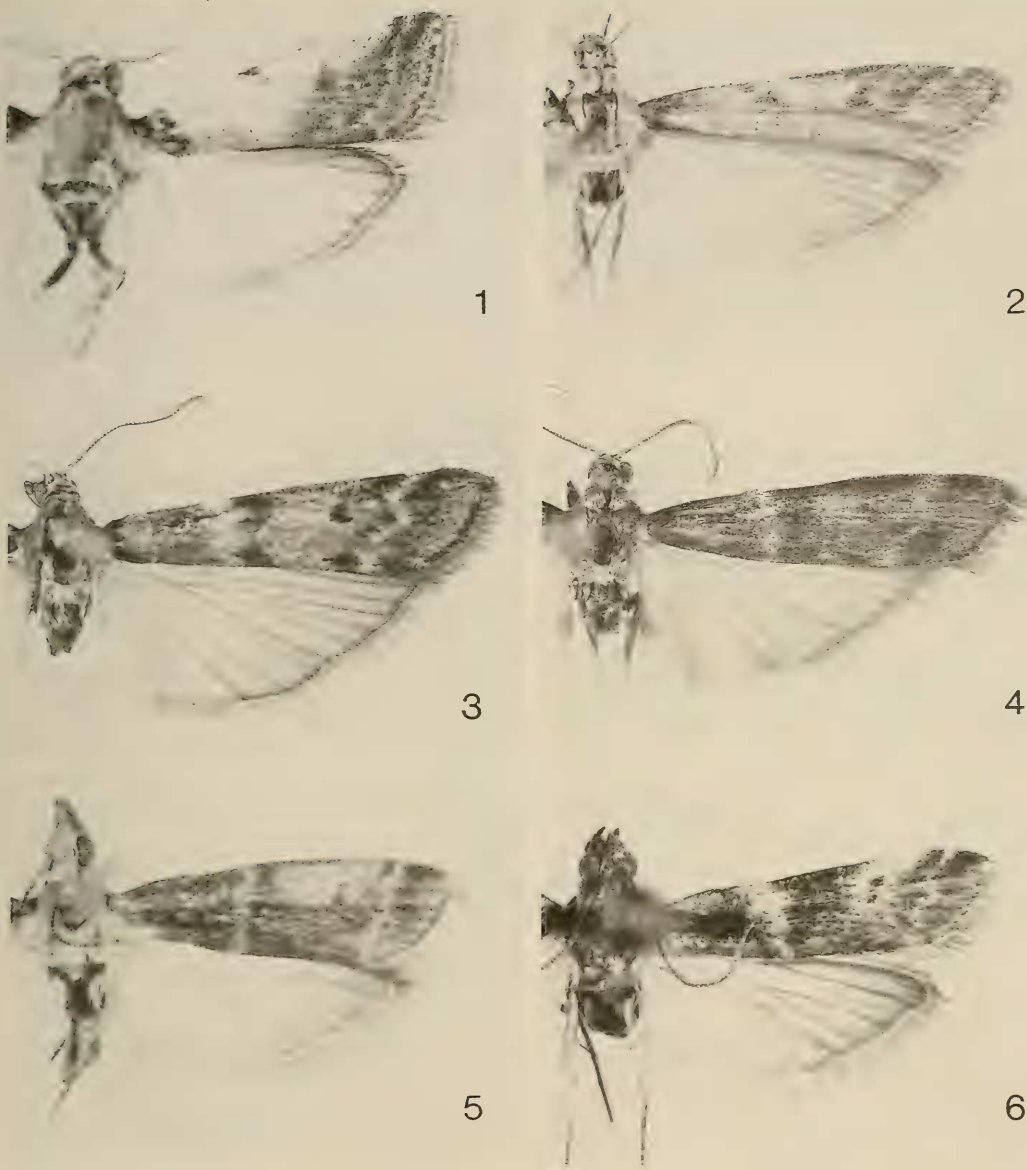
In 1956 Heinrich revised the American Phycitinae and recognized nine species as occurring in the Dominican Republic. An examination of more recently collected specimens of Dominican Republic phycitines in the National Museum of Natural History (USNM) and the Carnegie Museum of Natural History (CMNH) has established that many additional Phycitinae occur in this Caribbean country. This paper provides names for undescribed species found during the process of studying the newer material. A subsequent publication will consist of an annotated list of other Dominican Republic phycitines recently acquired by the USNM and CMNH.

The USNM material was obtained at lights at a total of 15 sites located at low to moderate elevations mostly in the west and central provinces in 1969, 1973, and 1981, during May and June. The CMNH phycitines were light-trapped at 52 locations that sampled the east, west, north, south and central parts of the country and included elevations ranging from sea level to montane sites exceeding 2300 meters above sea level during 1987, 1990, 1991 and 1992 in July, August, September, Oc-

tober and November. C. Covell (C.), D. and M. Davis (D. & D.), and O. Flint and L. Gomez (F. & G.) collected the USNM material; R. Davidson (D.), M. Klingler (K.), J. Rawlins (R.), S. Thompson (T.) and C. Young (Y.) collected the CMNH material.

The highest mountains in the Caribbean are found in the Dominican Republic. The Cordillera Central is 2000 meters above sea level near the Haitian border and reaches a height of 3087 meters at Pico Duarte. Rainfall is substantial in some regions and very limited in other areas. The flora is rich in diversity, and a large number of endemic species occur in the Republic. Liogier (1981) estimated that 36% of the plants in the Dominican Republic are endemics. Moscoso (1943) provided a general treatment of the flora, as well as a map showing the amount of rainfall that usually occurs in various parts of the country.

All holotypes and most paratypes of new species are deposited in the USNM and the CMNH. A few paratypes are in the North Carolina State University Insect Collection (NCSU).



Figs. 1-6. Male adults. 1, *Chararica circiimperfecta*, holotype (7.0 mm). 2, *Aptunga setadabilia*, holotype (9.0 mm). 3, *Aptunga vega*, holotype (13.0 mm). 4, *Aptunga culmenicola*, holotype (12.5 mm). 5, *Moodna antilleana*, holotype (6.5 mm). 6, *Caudellia pilosa*, holotype (6.0 mm). (Length of forewing in parentheses.)

***Chararica circiimperfecta* Neunzig new species**

(Figs. 1, 15-17, 23)

Type locality.—Independencia, 4 km S Los Pinos, Loma de Vientos (18-35N, 71-46W), 475 m, Dominican Republic.

Diagnosis.—Although moths of *C. circiimperfecta* resemble those of *Chararica hystriculella* (Hulst), the transtilla differs greatly in the two species. In *C. circiimperfecta* this structure is weakly developed, lacking medial elements and having

only short seta-bearing arms, whereas in *C. hystriculella* the transtilla has well developed, medially directed elements and the seta-bearing arms are long with the setae reaching, or almost reaching, the base of the uncus. The juxta of the two species also differs in that in *C. circiimperfecta* the lateral arms are shorter than in *C. hystriculella* and the associated setae are all on the distal half of the arms; the longer lateral arms of the juxta of *hystriculella* have setae on the basal as well as the distal half of the arms.

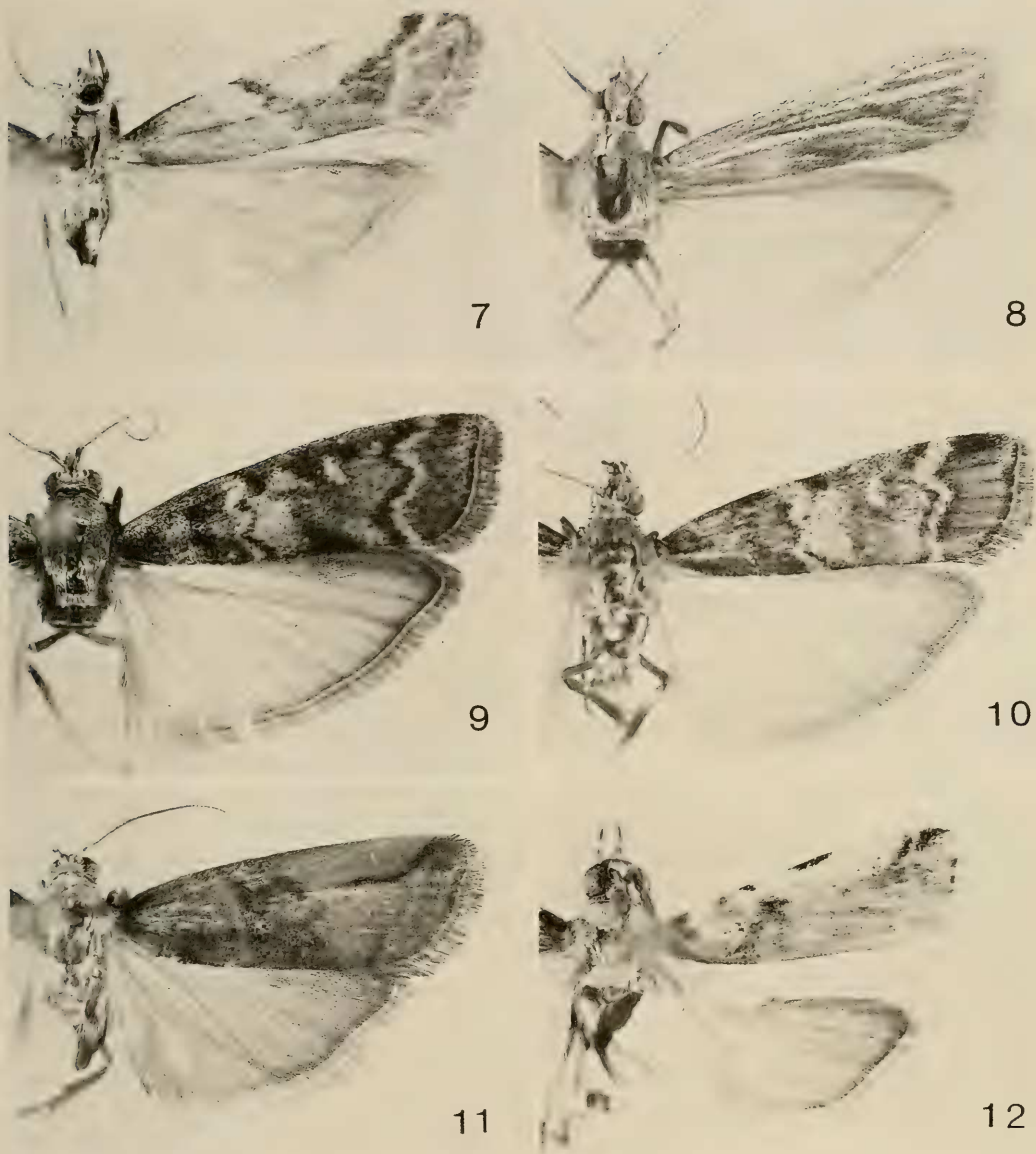
Description.—Length of forewing 7.0–8.0 mm. Head with frons smoothly scaled, pale fuscous and white; vertex fuscous and black, sometimes with reddish brown, white to brown or reddish brown between antennae; male and female antenna simple; labial palpus of both sexes curved upward (Fig. 23), mostly fuscous and black, basal segment generally dusted with white, other segments with a few white scales, mostly distally; maxillary palpus of both sexes with scaling aigrettelike, mostly fuscous and black and dusted with white. Thorax dorsum and collar fuscous, black and pale, to dark, reddish brown. Forewing with ground color fuscous to black; heavily overlaid with white on most of costal half and most of proximal part of posterior half (base of wing dark); antemedial line indistinguishable, blending with white of wing, its location partially delineated by thin (except at costa), incomplete, black line; post-medial line weakly formed, white; some indistinct red or brownish red scales sometimes generally distributed, or forming vague patches, on wing; discal spots moderately distinct, not clearly forming distinctive orbicular mark of other *Chararica*; underside of wing of male without costal fold and sex-scaling. Hindwing very pale fuscous, almost hyaline, darker near wing margins. Lateral thoracic sclerite of male with penicillus. Male abdominal segment 8 with paired ventrolateral scale tufts. Male genitalia (Figs. 15, 16) with uncus strongly tapered and slender distally; gna-

thos weak, lacking central projection; transtilla without medial elements, with widely spaced, short, lateral arms bearing clusters of setae; juxta platelike with rather short lateral lobes bearing setae distally; valva very broad, costa noticeably arched mesially, outer margin broadly rounded; vinculum shorter than greatest width; aedoeagus with lateral margins serrate toward apex. Female genitalia (Fig. 17) with ductus bursae short, less than half as long as corpus bursae, sclerotized, with lateral, transverse wrinkles in posterior half; ostium bursae with pair of lateral pocketlike elements along anterior margin; corpus bursae membranous with signum a scobinate, invaginated cup; numerous scobinations surrounding signum; ductus seminalis from corpus bursae near its junction with ductus bursae.

Material examined.—♂ (holotype), Independencia, 4 km S Los Pinos, Loma de Vientos (18-35N, 71-46W), 475 m, semi-arid deciduous forest with pastures, 12 October 1991, D. Y. T. R., genitalia slide 3653 HHN; 1 ♂ (paratype), same collection data; 1 ♂ (paratype), Pedernales, 9.5 km N Cabo Rojo (18-02N, 71-39W), 35 m, 19 July 1990, R. Y. T., genitalia slide 3782 HHN; 2 ♀ (paratypes), Monti Cristi, 5 km NNE Botoncillo (19-46N, 71-24W), 50 m, arid thornscrub, 29–30 November 1992, D. K. T. R., genitalia slide 3654 HHN.

Discussion.—This is the only record of the genus *Chararica* occurring outside the United States; however, it is likely that at least one species also occurs in Mexico (Neunzig 1990). Based on *Chararica* moths previously collected, the genus appears to be restricted to arid sites; the label information on the Dominican Republic moths supports this view.

Etymology.—The lack of clearly delineated orbicular, discal marks on the forewing, a distinguishing feature of other *Chararica*, has suggested the name *circiimperfecta* for this species.



Figs. 7-12. Male adults. 7, *Varneria albiornatella*, holotype (8.0 mm). 8, *Ozamia plagata*, holotype (10.5 mm). 9, *Dioryctria postmajorella*, holotype (14.0 mm). 10, *Dioryctria dominguensis*, holotype (14.0 mm). 11, *Dasyphyga independencia*, holotype (11.0 mm). 12, *Lascelina pedernalensis*, holotype (6.5 mm). (Length of forewing in parentheses.)

***Aptunga setadebilia* Neunzig, new species**

(Figs. 2, 18-21)

Type locality.—La Vega, 18 km SE Constanza (18-46N, 70-39W), 2310 m, Dominican Republic.

Diagnosis.—*A. setadebilia* has the following combination of features: forewing narrowly elongate with CuA_1 and CuA_2 approximate at base, and with indistinct to moderately well developed antemedial and postmedial lines; male genitalia with uncus



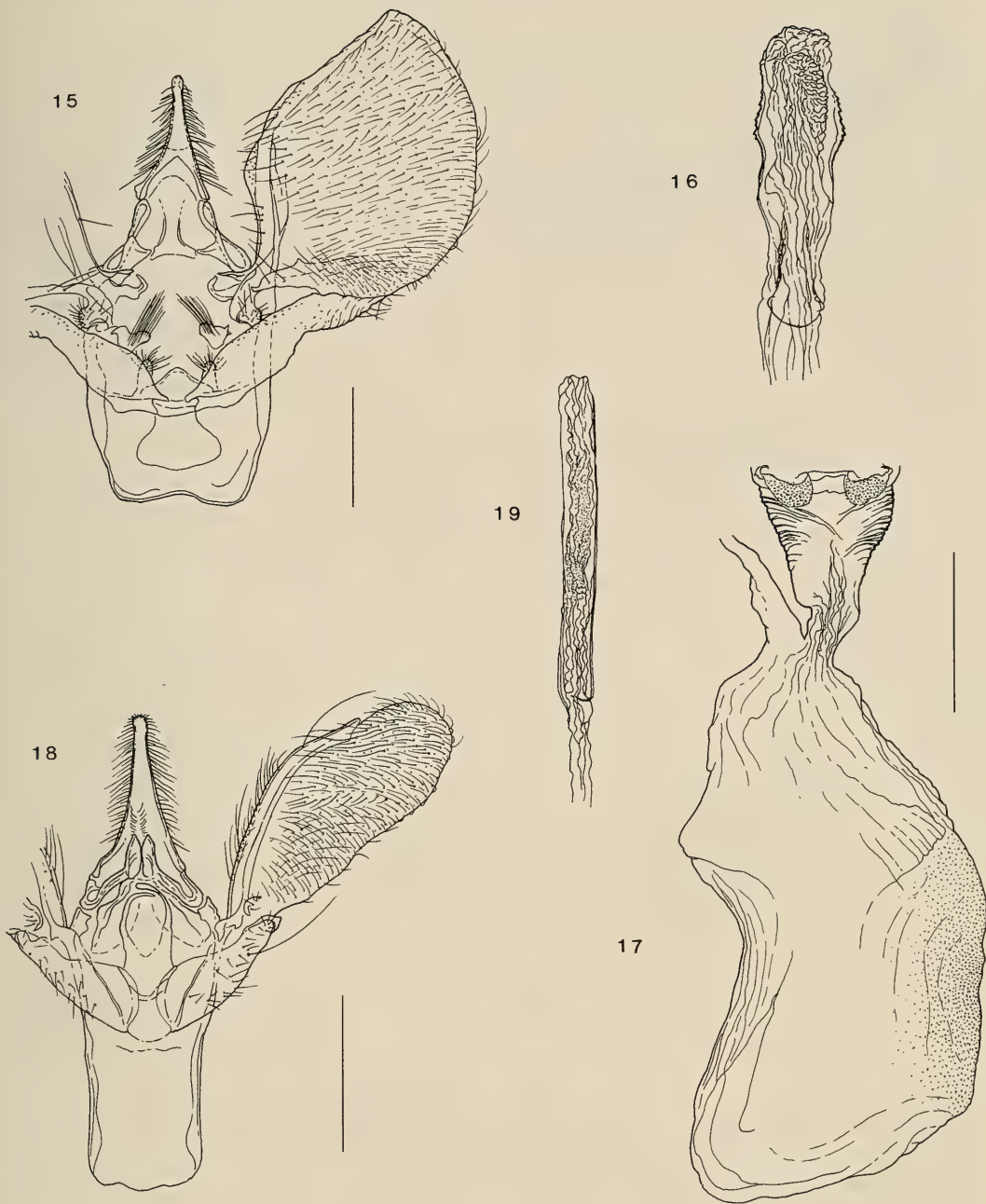
Figs. 13, 14. Male adults. 13, *Zamagiria rawlinsi*, holotype (11.5 mm). 14, *Caristanius tripartitus*, holotype (10.0 mm). (Length of forewing in parentheses.)

distally attenuated; female genitalia with unsclerotized corpus bursae, without signum. The species is easily separated from its nearest relative, *Aptunga macropasa* (Dyar), in that, in the male, abdominal segment 8 of *A. setadabilia* has weakly formed, indistinct scale tufts rather than strongly developed tufts.

Description.—Length of forewing 8.5–9.0 mm. Head with frons with white-tipped, pale fuscous scales; vertex similar to frons but whiter, particularly near base of antenna; male and female antenna simple; labial palpus (Fig. 20) oblique; rather long, extending well beyond head in both sexes, basal segment mostly white with some fuscous, 2nd and 3rd segments fuscous with white distally; maxillary palpus fuscous, simple in both sexes. Thorax collar and dorsum pale fuscous to fuscous with many scales tipped with white. Forewing with fuscous ground color; antemedial line indistinct to moderately well developed, white; postmedial line indistinct to moderately well developed, white; basal, subbasal, medial and terminal areas moderately dusted with white and with varying amounts of red or pale reddish brown scales generally dispersed or forming vague patches; discal spots moderately well developed, black; underside of wing of male without costal fold and sex-scaling. Hindwing pale

fuscous, darker along veins and near costal and outer margins. Male abdominal segment 8 with weakly formed scale tufts. Male genitalia (Figs. 18, 19) with uncus subtriangular, tapering abruptly, apical half narrow, bluntly pointed; gnathos with apical part divided into two, mostly parallel-sided elements; transtilla incomplete, represented by pair of separated, somewhat triangular, plates; juxta platelike with elongate lateral arms that extend posteriorly to base of apical elements of gnathos; valva rather simple, with strongly sclerotized costal band for about 3/4 its length; apex of costal band pointed and projecting very slightly free of valva, vinculum slightly longer than greatest width; aedoeagus slender and simple. Female genitalia (Fig. 21) with ductus bursae membranous, long and very slender, with band of scobinations near ostium bursae, and weak patch of scobinations near junction with corpus bursae; corpus bursae membranous, short and ovoid with faint signum composed of two small, pointed plates; ductus seminalis attached near middle of corpus bursae.

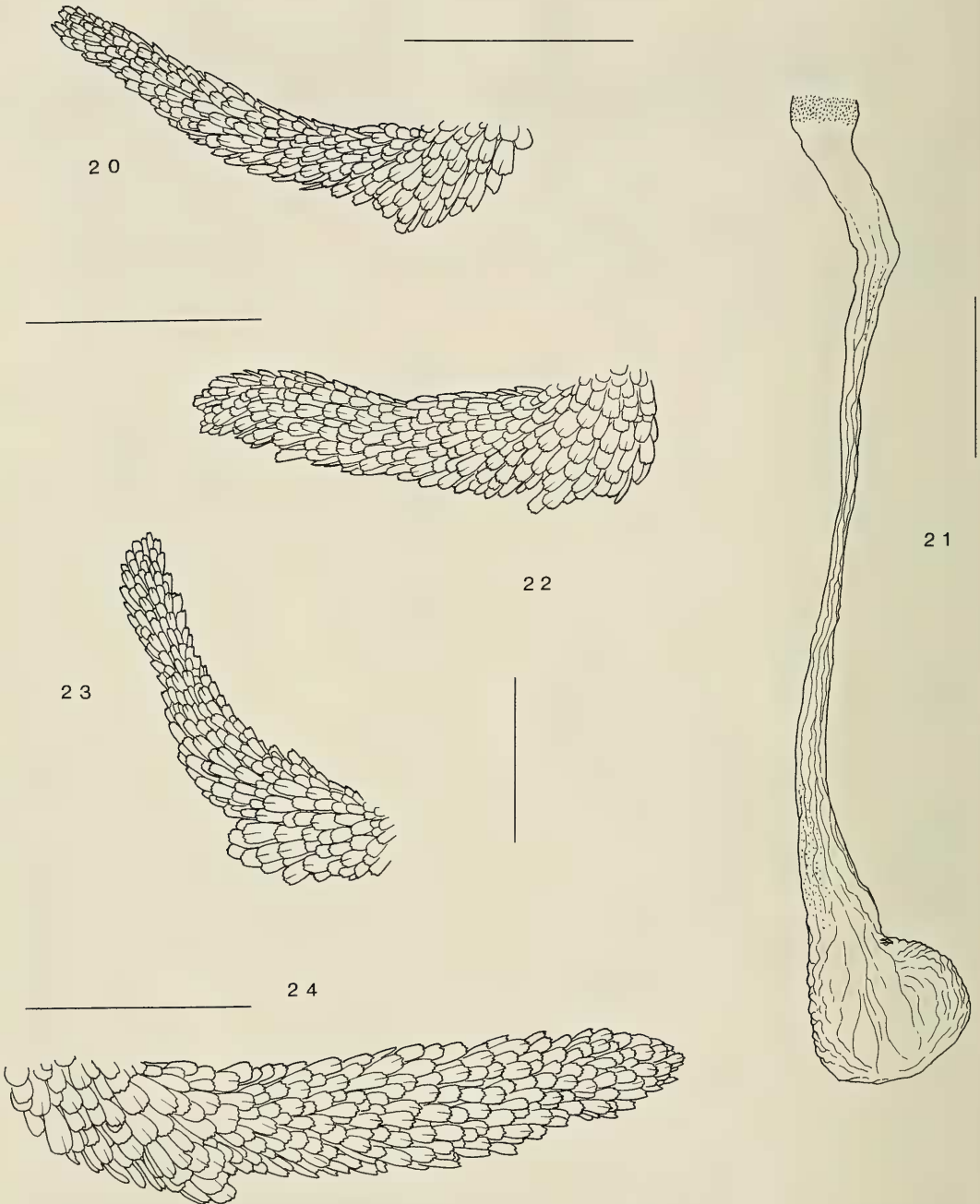
Material examined.—♂ (holotype), La Vega, 18 km SE Constanza (18-46N, 70-39W), 2310 m, pine woodland near head of small canyon, 25 November 1992, K. R. D. T., genitalia slide 3637 HHN; 2 ♂, 1 ♀ (paratypes), same collection data, genitalia



Figs. 15–19. Male and female genitalia. 15, *Chararica circiimperfecta*, aedeagus omitted. 16, *C. circiimperfecta*, aedeagus. 17, *C. circiimperfecta*, ductus bursae, corpus bursae and anterior part of ductus seminalis. 18, *Aptunga setadabilia*, aedeagus omitted. 19, *A. setadabilia*, aedeagus. (All scale lengths 0.5 mm.)

slide 3780 HHN; 1 ♀ (paratype), Pedernales, 5 km NE Los Arroyos (18–15N, 71–45W), 1680 m, cloud forest, 30 September 1991, D. Y. T. R., genitalia slide 3638

HHN; 1 ♀ (paratype), Peravia, 3 km SW La Nuez, Upper Rio Las Cuevas (18–39N, 70–36W), 1880 m, cloud forest on river, 5–6 October 1991, R. D. Y. T.



Figs. 20–24. Labial palpi and female genitalia. 20, *Aptunga setadebilia*, palpus. 21, *A. setadebilia*, ductus bursae and corpus bursae. 22, *A. culmenicola*, palpus. 23, *Chararica circiimperfecta*, palpus. 24, *Aptunga vega*, palpus. (All scale lengths 0.5 mm.)

Discussion.—Species in *Aptunga* appear to be restricted to relatively high elevation, mountainous sites. The Guatemalan and Mexican species, *A. macropasa*, has been reported from Purulhá, Chejel, Volcán Santa Maria and Orizaba (Heinrich, 1956). In the Dominican Republic, the three species of *Aptunga* described in this paper were collected at elevations of 1680 to 2310 m.

Etymology.—The specific epithet *setadabilia* is a combination of the Latin noun *seta*, meaning bristle, and the Latin adjective *debilis*, meaning weak, in allusion to the weakly formed scale tufts on the 8th abdominal segment.

***Aptunga vega* Neunzig, new species**
(Figs. 3, 24–27)

Type locality.—La Vega, 23 km SE Constanza (18-45N, 70-37W), 2225 m, Dominican Republic.

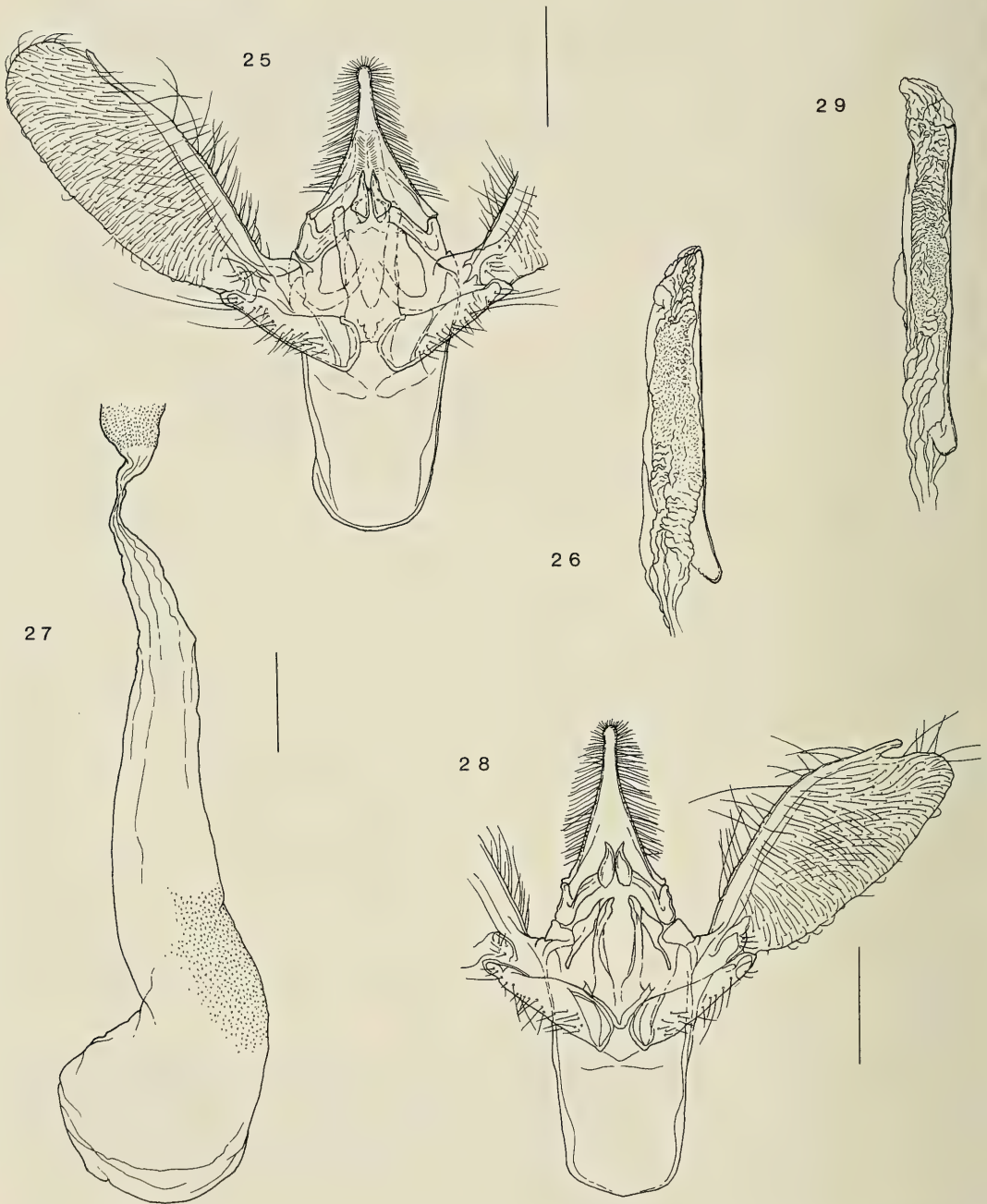
Diagnosis.—*Aptunga vega* is larger than *Aptunga macropasa* and *Aptunga setadabilia*. *A. vega* also has distinct antemedial and postmedial lines on the forewing; all other known *Aptunga* have indistinct to only moderately well developed transverse lines. Also, unlike other *Aptunga*, where both sexes are known, the labial palpus in *A. vega* is distinctly longer in the female than in the male.

Description.—Length of forewing 11.5–13.0 mm. Head with frons with anteriorly projecting white-tipped reddish brown scales. Vertex similar in color to frons but whiter, particularly near base of antenna; male and female antenna simple; labial palpus (Fig. 24) oblique, rather long, extending well beyond head in male, longer, reaching well above vertex in female, basal segment mostly white with some whitish brown or fuscous, 2nd and 3rd segments reddish brown and fuscous with white distally; maxillary palpus mostly reddish brown, simple in both sexes. Thorax collar fuscous, usually heavily washed with brownish red with a few white scales mesially, dorsum of thorax similar to collar but less brownish red. Forewing with ground

color fuscous; antemedial line distinct, broad, white; postmedial line distinct, white; basal area with small, short, longitudinal streaks or patches of red, and a few white scales; subbasal area with scattered red, brownish red and white scales; medial area dusted with white, with few to many scattered, or patches of, red to brownish red scales; discal spots usually distinct, black, fused; terminal area similar to medial area, but with fewer white scales; underside of wing of male without costal fold and sex-scaling. Hindwing pale fuscous, darker along veins and at wing margins. Male abdominal segment 8 with pair of strongly developed, ventrolateral scale tufts. Male genitalia (Figs. 25, 26) with uncus subtriangular, tapering abruptly, apical half narrow, bluntly pointed; gnathos with apical part divided into two tapered elements; transtilla incomplete, consisting of pair of subtriangular plates; juxta with elongate lateral arms that extend to base of apical elements of gnathos; valva relatively simple, with strongly sclerotized costal band for about 6/7 its length; apex of costal band pointed and projecting slightly free of valva; vinculum slightly longer than greatest width; aedoeagus simple. Female genitalia (Fig. 27) with ductus bursae membranous, long with broad band of scobinations near ostium bursae, and patch of scobinations near junction with corpus bursae; corpus bursae membranous, short, without signum; ductus seminalis attached near middle of corpus bursae.

Material examined.—♂ (holotype), La Vega, 23 km SE Constanza (18-45N, 70-37W), 2225 m, grassland with pines and scattered marshes, 24–25 November 1992, D. K. T. R., genitalia slide 3634 HHN; 2 ♀, (paratypes), same collection data, genitalia slide 3636 HHN; 1 ♂, 1 ♀ (paratypes), La Vega 24 km SE Constanza (18-44N, 70-36W), 2220 m, grassland, 16 August 1990, R. T., genitalia slide 3635 HHN.

Discussion.—*Aptunga vega* appears to be associated with high elevation sites



Figs. 25-29. Male and female genitalia. 25, *Aptunga vega*, aedoeagus omitted. 26, *A. vega*, aedoeagus. 27, *A. vega*, ductus bursae and corpus bursae. 28, *A. culmenicola*, aedoeagus omitted. 29, *A. culmenicola*, aedoeagus. (All scale lengths 0.5 mm.)

where grasses are the dominant plant species.

Etymology.—The specific epithet is derived from the type locality (La Vega).

***Aptunga culmenicola* Neunzig, new species**

(Figs. 4, 22, 28, 29)

Type locality.—La Independencia, 15 km NE Los Arroyos (Pedernales); summit of Sierra de Baoruco, 2260 m, Dominican Republic.

Diagnosis.—Similar in size and general appearance to *Aptunga vega*, but the forewing is without the strongly contrasting transverse lines, and is generally darker. The labial palpus of the male is short (Fig. 22) compared to the palpi of other male *Aptunga*.

Description.—Length of forewing 12.5 mm. Head with frons with anteriorly projecting white-tipped fuscous and reddish brown scales. Vertex similar in color to frons but whiter, particularly near base of antenna; male and female antenna simple; labial palpus of male (Fig. 22) oblique, all segments fuscous suffused with black with a few white scales; maxillary palpus mostly fuscous suffused with black, simple in male. Thorax collar fuscous washed with brownish red, dorsum of thorax similar to collar but less brownish red. Forewing with ground color fuscous; antemedial and post-medial lines only moderately well developed, white, not distinctly contrasting with ground color; basal area with short, longitudinal streaks of red, and with a few white scales; subbasal, medial and terminal areas with a few scattered white scales and some red scales, and partially suffused with black; discal spots obscure, fused; underside of wing without costal fold and sex-scaling. Hindwing pale fuscous, darker along veins and near wing margins. Male abdominal segment 8 with pair of well developed, ventrolateral scale tufts. Male genitalia (Figs. 28, 29) with uncus subtriangular, tapering abruptly, apical half narrow, bluntly pointed; gnathos with apical part di-

vided into two tapered elements whose apices diverge; transtilla incomplete, consisting of pair of subtriangular plates; juxta with elongate lateral arms that do not reach base of apical elements of gnathos; valva relatively simple, with strongly sclerotized costal band for about 6/7 its length; apex of costal band rounded and projecting free of valva; vinculum slightly longer than greatest width; aedeagus simple. Female unknown.

Material examined.—♂ (holotype), La Independencia, 15 km NE Los Arroyos (Pedernales), summit of Sierra de Baoruco, 2260 m, 19 July 1987, D. R., genitalia slide 3776 HHN.

Etymology.—The montane habitat of this species has suggested the name *culmenicola*.

***Moodna antilleana* Neunzig, new species**
(Figs. 5, 30, 31, 37)

Type locality.—Dajabon Province, 13 km S Loma de Cabrera, ca. 400 m, Dominican Republic.

Diagnosis.—In the male of *M. antilleana* the tuft of sex scales associated with the costal fold of the forewing is entirely whitish ochre. This tuft is red or reddish brown distally in other male *Moodna*, such as the similar appearing *Moodna pallidostrinella* Neunzig.

Description.—Length of forewing 7.0–8.0 mm. Head with frons and vertex brownish white to brown; labial palpus outwardly with basal segment mostly white with pale brown or brown, distal segments pale brown or brown usually with a few white scales. Thorax with collar brown, or pale brown, washed with red; dorsum of thorax similar to collar, but usually with less red and sometimes some scales tipped with white. Forewing with base brownish red or red, or combination of mostly brownish red or red and some brown, to antemedial line; antemedial line moderately distinct, consisting of white and white-tipped fuscous scales; medial area brown, strongly dusted with white on costal half and with patch of

red on inner half that sometimes extends onto costal half; discal spots weakly, to well, developed, black, fused; postmedial line same color and as distinct as antemedial line; terminal area brown washed with red and white, sometimes mostly red. Forewing of male with sex-scales of costal fold whitish ochre. Hindwing pale fuscous. Male abdominal segment 8 with dorsal scale tufts. Male genitalia (Figs. 30, 31) with uncus truncate; apical process of gnathos a very slender hook; transtilla incomplete; juxta narrow and semi-oval; valva with two costal projections separated by distance equal to length of inner projection; inner projection sinuate with apical part slightly curved mesially; aedoeagus simple; vinculum longer than greatest width. Female genitalia (Fig. 37) with ductus bursae 2 times as long as corpus bursae, lightly sclerotized for about one-fifth its length posteriorly and with band of very small spines near ostium bursae; corpus bursae membranous, with signum consisting of two small fused discs; ductus seminalis from corpus bursae near signum.

Material examined.—♂ (holotype), Dajabon Province, 13 km S Loma de Cabrera, ca. 400 m, 20–22 May 1973, D. & D., genitalia slide 3858 HHN; 3 ♀ (paratypes), La Vega Province, Constanza, 1164 m, Hotel Nueva Suiza, 29 May 1973, D. & D.; 2 ♀ (paratypes), Pedernales, 37 km N Cabo Rojo (18-09N, 71-35W), 1480 m, 21–22 July 1990, Y. R. T., genitalia slide 3737 HHN.

Discussion.—*Moodna antilleana* appears to be closely related to *Moodna pallidostrinella* Neunzig, but differs as follows: 1. the ochre found on the head, thorax and upper surface of the forewing of *M. pallidostrinella* is absent on *M. antilleana*; 2. the sex-scales associated with the costal fold of the undersurface of the forewing are entirely whitish ochre in *M. antilleana*, but partially brownish red in *M. pallidostrinella*; 3. the inner costal projection of the valva of the male of *M. antilleana* has the apical part curved mesially, and both costal pro-

jections close to the base of the valva (Fig. 30), whereas in *M. pallidostrinella* the inner projection is curved outwardly and the projections are more remote from the valva base; 4. the signum of the corpus bursae of the female of *M. antilleana* consists of only two discs (Fig. 37), the signum consists of four fused discs in *M. pallidostrinella*.

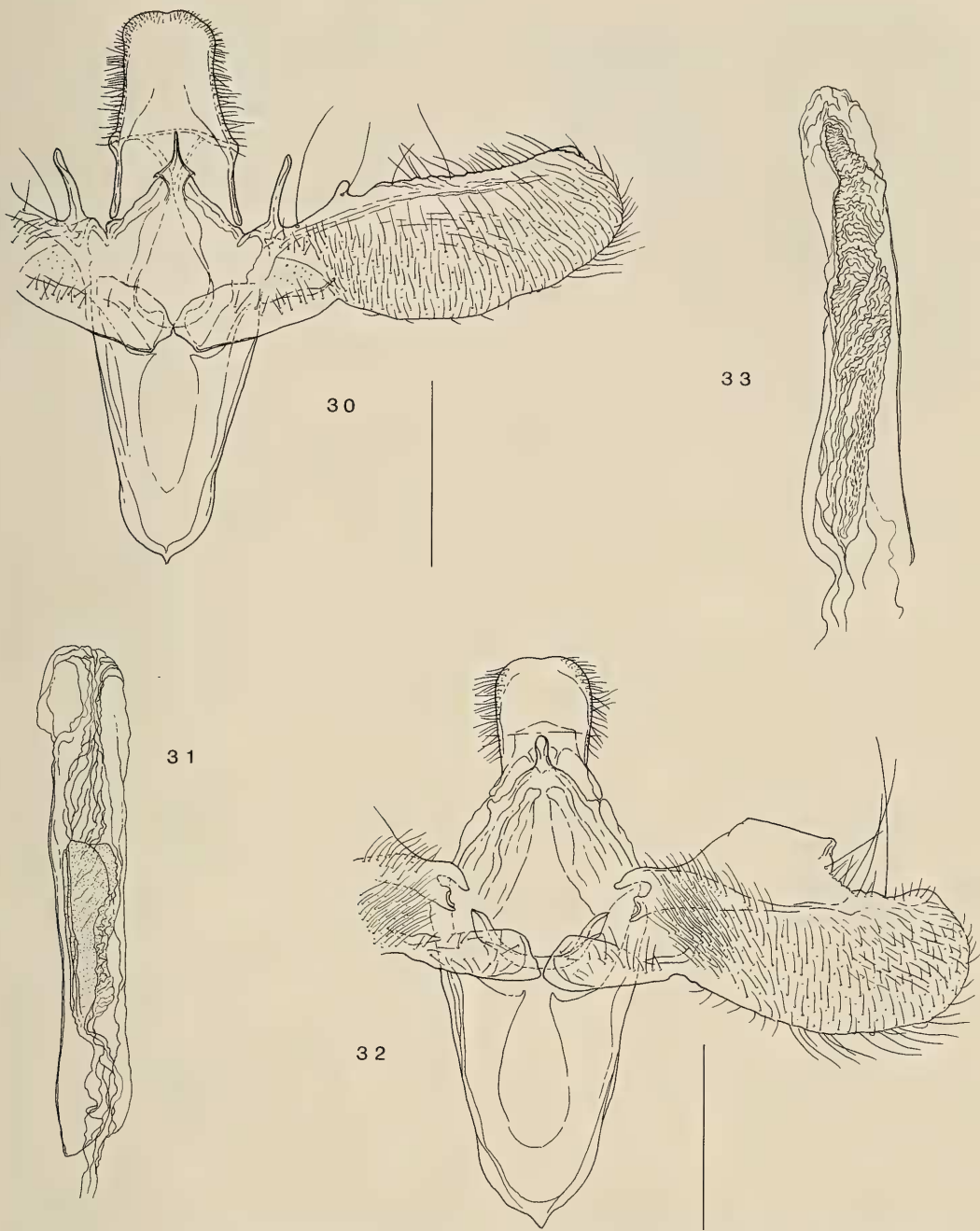
Etymology.—The specific epithet is derived from the type locality (The Antilles) and the Latin suffix *-ana* (belonging to).

***Caudellia pilosa* Neunzig, new species**
(Figs. 6, 32, 33)

Type locality.—La Vega Province, Hotel Montana, ca. 520 m, 10 km NE Jarabacoa, Dominican Republic.

Diagnosis.—The unusually dense patch of setae at the inner base of the male valva readily identifies *Caudellia pilosa*. Based on the male genitalia, *pilosa* appears to be most closely related to *Caudellia clara* Heinrich. *C. clara* most noticeably differs from the new species in having a longer distal element on the gnathos, and a pointed, somewhat detached projection on the costa of the valva (projection truncate and broadly fused to costa in *pilosa*), in addition to lacking a very dense basal patch of setae on the valva.

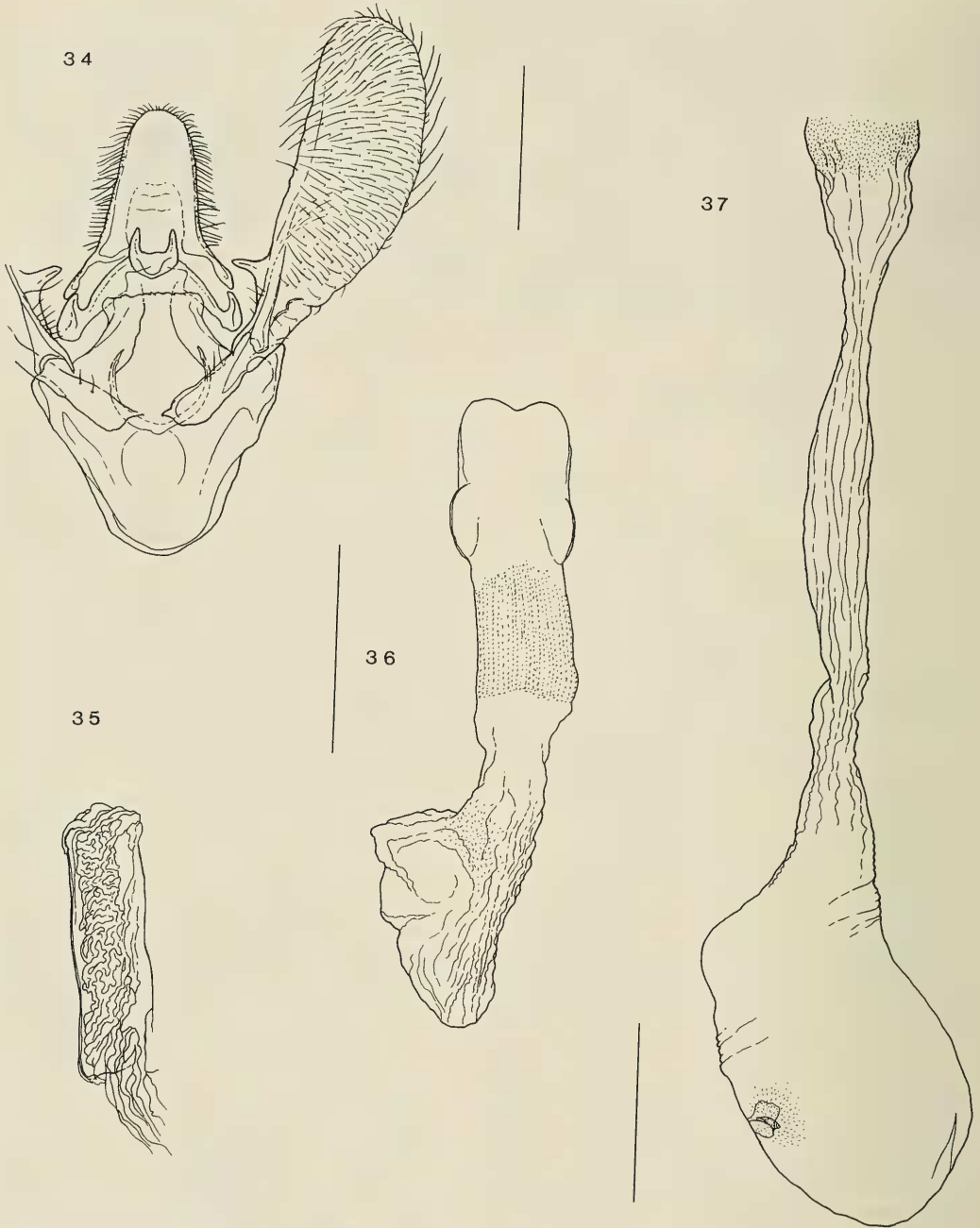
Description.—Length of forewing 6.5–7.0 mm. Head with frons and vertex brownish gray to fuscous with light dusting of white near eyes; labial palpus brownish gray and black, dusted with white on basal segment and sometimes with white on more distal segments. Thorax with collar brownish gray and black faintly washed with pale reddish brown; dorsum of thorax brownish gray faintly washed with pale reddish brown. Forewing with ground color brownish gray; basal and subbasal area with white and a few reddish brown scales on costal 1/2, with patch of pale purplish brown on inner margin and with suffusion of black medially; antemedial line distinct, white, angled, narrow on inner margin; medial area suffused with black and pale purplish brown, and patch of white at costa distally



Figs. 30–33. Male genitalia. 30, *Moodna antilleana*, aedeagus omitted. 31, *M. antilleana*, aedeagus. 32, *Caudellia pilosa*, aedeagus omitted. 33, *C. pilosa*, aedeagus. (All scale lengths 0.5 mm.)

and surrounding discal spots; discal spots black, distinct; postmedial line white, weakly developed; underside of wing with red sex-scales associated with costal fold. Hind-

wing smoky brown. Male abdominal segment 8 with dorsal scale tufts. Male genitalia (Figs. 32, 33) with uncus slightly broader distally than basally; gnathos with



Figs. 34–37. Male and female genitalia. 34, *Varneria albiornatella*, aedeagus omitted. 35, *V. albiornatella*, aedeagus. 36, *Varneria albiornatella*, ductus bursae and corpus bursae. 37, *Moodna antilleana*, ductus bursae and corpus bursae. (All scale lengths 0.5 mm.)

central projection short, thumblike; transtilla incomplete with broad lateral arms; juxta shallowly U-shaped; valva with large, truncate costal projection, and with dense patch

of setae at inner base; vinculum longer than greatest width; aedeagus with linear cluster of small spines. Female unknown.

Material examined.—♂ (holotype), La

Vega Province, Hotel Montana, ca. 520 m, 10 km NE Jarabacoa, 28 May 1973, D. & D., genitalia slide 3871 HHN; 1 ♂ (paratype), same collection data.

Etymology.—The specific epithet is derived from the Latin *pilosus* in reference to the dense patch of setae at the base of the male valva.

***Varneria albiornatella* Neunzig, new species**

(Figs. 7, 34–36)

Type locality.—Peravia, 3 km SW La Nuez, tributary to Rio Las Cuevas (18-40N, 70-36W), 1870 m, Dominican Republic.

Diagnosis.—*Varneria albiornatella* differs from other nominal species of *Varneria* in having large patches of white on the forewing; all other *Varneria* lack pale scales on the forewing (*V. postremella* Dyar, *V. nannodes* Dyar), or have weakly developed white or near-white antemedial and postmedial lines (*V. atrifasciella* Barnes and McDunnough, *V. dubia* Heinrich).

Description.—Length of forewing 6.0–8.5 mm. Head with frons with pale brown to fuscous scales; vertex pale brown; male and female antenna simple; labial palpus oblique to upcurved, basal segment white, or mostly white, 2nd segment mostly fuscous with a few white distal scales, 3rd segment fuscous; maxillary palpus simple, pale brown. Thorax collar and dorsum pale brown to fuscous washed with pale reddish brown or purple. Forewing with costal half mostly white and posterior half with dominant color brownish red, red, or purplish red; some scattered brownish red, red or purplish red scales on costal half; antemedial line rather well developed, white, strongly angled from costa to posterior margin of wing; postmedial line moderately well developed, white; black patches at base of wing, along costa, in posterior part of subbasal area, bordering distal margin of antemedial line, bordering proximal part of postmedial line, and in distal area; discal spots obscure to moderately distinct, black,

fused; underside of wing of male with costal fold. Hindwing pale fuscous, darker along veins and at margins. Male genitalia (Figs. 34, 35) with uncus subtriangular, broadly rounded apically; gnathos with distal part U-shaped, prongs short and straight; transtilla complete, truncate with broad lateral bases; juxta a shield with narrow lateral arms; valva with projecting dorsal spur near base of costa; spur slightly curved toward base of valva; vinculum distinctly shorter than greatest width; aedoeagus somewhat short, straight, unarmed. Female genitalia (Fig. 36) with ductus bursae sclerotized and flattened posteriorly for slightly over one-half its length; anterior part of this sclerotized area also scobinate; dorsal shield behind ostium bursae concave along posterior margin; corpus bursae short small, without signum; ductus seminalis from near middle of corpus bursae.

Material examined.—♂ (holotype), Peravia, 3 km SW La Nuez, tributary to Rio Las Cuevas (18-40N, 70-36W), 1870 m, 5–6 August 1990, R. T., genitalia slide 3767 HHN; 1 ♂, 1 ♀ (paratypes), Pedernales, 5 km NE Los Arroyos (18-15N, 71-45W), 1680 m, 17–18 July 1990, Y. R. S., genitalia slides 3639 HHN, 3640 HHN.

Etymology.—The presence of white patches on the forewing has suggested the name *albiornatella* for this species.

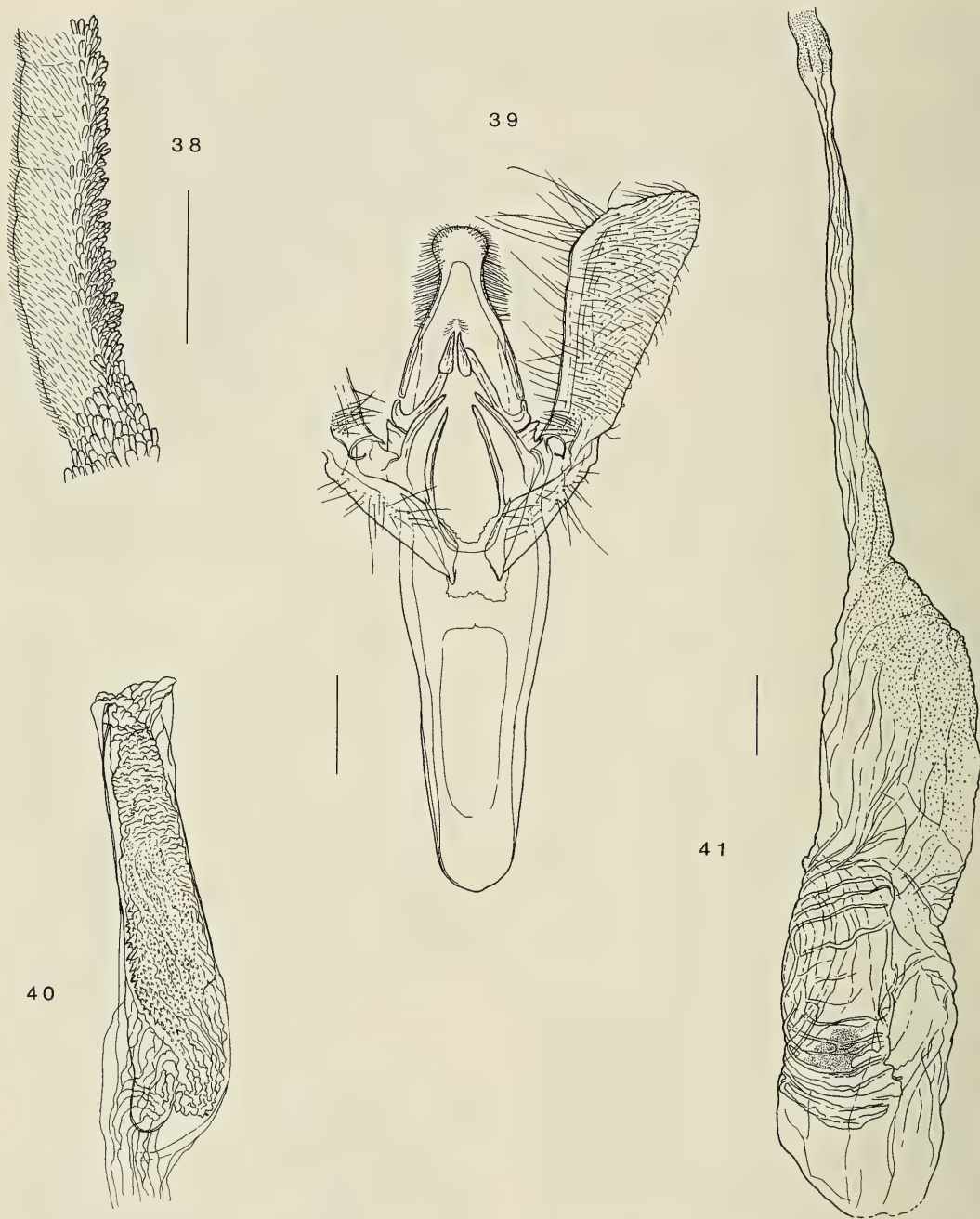
***Ozamia plagata* Neunzig, new species**

(Figs. 8, 38–41)

Type locality.—Pedernales, 14.5 km N Cabo Rojo (18-03N, 71-39W), 165 m, Dominican Republic.

Diagnosis.—The contrasting light and dark longitudinal lines or streaks on the forewing (Fig. 8) in conjunction with the clusters of scalelike sensilla at the base of the male antenna (Fig. 38) make this species easy to identify. Other *Ozamia*, such as *O. lucidalis* (Walker) that is also found in the Dominican Republic, have the antennal sensilla, but lack longitudinal lines on the forewing.

Description.—Length of forewing 9.5–



Figs. 38-41. Male antenna and male and female genitalia of *Ozamia plagata*. 38, Base of antenna. 39, Male genitalia, aedoeagus omitted. 40, Aedoeagus. 41, Ductus bursae and corpus bursae. (All scale lengths 0.5 mm.)

12.5 mm. Head pale brown to brown; vertex with white at base of antenna and extending above eyes; male antenna (Fig. 38) with six to seven clusters of scalelike sen-

silla within basal sinus; labial palpus oblique, pale brown to brown dusted with white; maxillary palpus simple, pale brown to brown dusted with white. Thorax with

collar pale brown to fuscous lightly dusted with white and with pure white mesially; dorsum of thorax pale brown to fuscous lightly dusted with white. Forewing with ground color pale brown to brown with fuscous to black longitudinal streaks on veins or paralleling veins and longitudinal streaks of white between dark streaks (some specimens with broader suffusions or patches of fuscous or black); antemedial and postmedial lines usually absent (a few darker specimens with vague, white antemedial line); discal spots indistinct. Hindwing semi-hyaline, dark near costal and outer margins. Male genitalia (Figs. 39, 40) with distal part of uncus broad; gnathos with apical process rather small, bifid; transtilla incomplete mesially; juxta with long slender lateral arms; valva simple with apex oblique; vinculum slender, over 2× as long as greatest width; aedoeagus moderately stout and scobinate. Female genitalia (Fig. 41) with ductus bursae, elongate, membranous, minutely scobinate near genital opening and with larger microspines near junction with corpus bursae; corpus bursae membranous, with microspines posteriorly, without distinct signum but with slightly sclerotized region and distinct wrinkles in anterior half; ductus seminalis from near middle of corpus bursae.

Material examined.—♂ (holotype), Pedernales, 14.5 km N Cabo Rojo (18-03N, 71-39W), 165 m, 13 July 1990, R. Y. T., genitalia slide 3648 HHN; 1 ♂ (paratype), Monte Cristi Prov., 10 km S Monte Cristi, 5 m, 23 May 1973 D. & D.; 2 ♂, 6 ♀ (paratypes), Pedernales, 8 km N Cabo Rojo, 30 m, 18 July 1987, D. R.; 2 ♂ (paratypes), Pedernales, 14.5 km N. Cabo Rojo (18-03N, 71-39W), 165 m, 13 July 1990, R. Y. T.; 4 ♂, 3 ♀ (paratypes), Pedernales, 14.5 km N Cabo Rojo (18-03N, 71-39W), 165 m, 19 July 1990, R. Y. T.; 1 ♂, 3 ♀ (paratypes), Pedernales, 1 km W. Cabo Rojo (17-55N, 71-39W), 10 m, 30 July 1990, Y. R. T.; 3 ♂, 3 ♀ (paratypes), Pedernales, 14.5 km N Cabo Rojo (18-03N, 71-39W), arid thornscrub, 165 m, 26–27 September 1991

Y. T. D. R., genitalia slides 3649 HHN, 3650 HHN; 2 ♂ (paratypes), Pedernales, Cabo Rojo (17-55N, 71-39W), coastal desert, 10 m, 26–27 September 1991, Y. T. D. R.; 1 ♂, 1 ♀ (paratypes), La Altagracia 2 km N Bayahibe (18-23N, 68-51W), dry seasonal forest on limestone, 10 m, 3 July 1992, Y. D. T. R.; 1 ♂ (paratype), Independencia, 4 km S Los Pinos, Loma de Vientos (18-35N, 77-46W), semiarid deciduous forest with pastures, 455 m, 23 July 1992, D. R. T. Y.; 3 ♂, 5 ♀ (paratypes), Monte Cristi, 5 km NNE Botocillo (19-46N, 71-24W), arid thornscrub, 50 m, 29–30 November, 1992, D. K. T. R., genitalia slides 3651 HHN, 3652 HHN.

Discussion.—Larvae of *Ozamia* are known to feed on several species of cactus, particularly those in the genus *Opuntia* Miller. *Opuntia* occurs in the Dominican Republic (Moscoso 1943) and is probably the larval host of *Ozamia plagata*. Label information on adult specimens lend credence to this proposed cactus association in that adult specimens were collected in “coastal desert,” “dry seasonal forest,” “semiarid deciduous forest,” and “thornscrub.”

Etymology.—The presence of contrastingly colored streaks on the forewing has suggested the name *plagata* for this species.

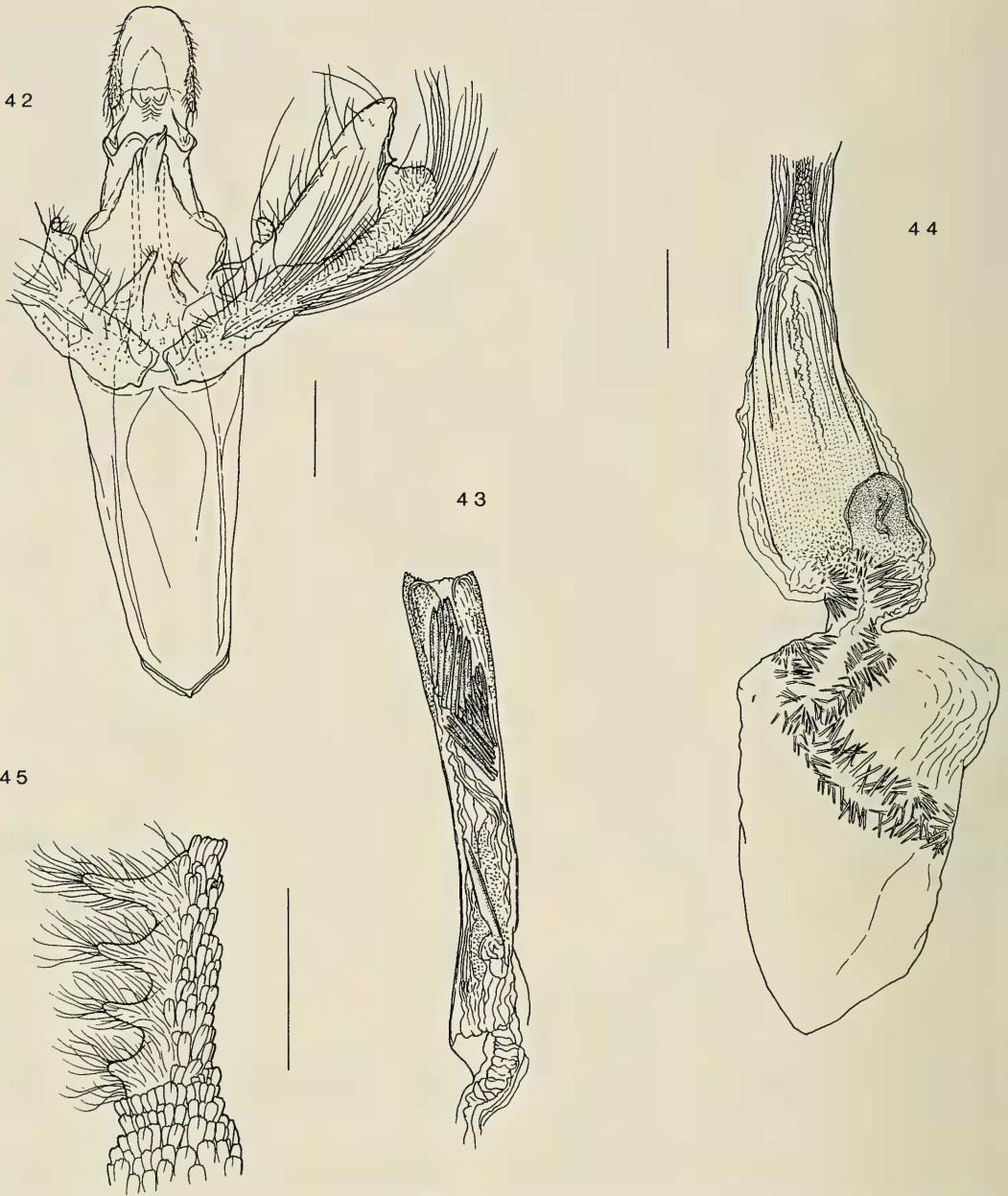
***Dioryctria postmajorella* Neunzig, new species**

(Figs. 9, 42–45)

Type locality.—Independencia, 3 km ESE EI Aguacate, north slope Sierra de Baoruco (18-18N, 71-42W), 1980 m, Dominican Republic.

Diagnosis.—The female genitalia of *D. postmajorella* can be used to identify the species. A rather large, sclerotized, thickened, spinefree, platelike element is associated with the cluster of spines in the anterior of the ductus bursae; this feature is absent in other *Dioryctria*, including the closely related *D. majorella* Dyar.

Description.—Length of forewing 12.0–15.0 mm. Head with frons white and fuscous or black, many dark scales directed



Figs. 42-45. Male antenna and male and female genitalia of *Dioryctria postmajorella*. 42, Male genitalia, aedeagus omitted. 43, Aedeagus. 44, Ductus bursae and corpus bursae. 45, Base of antenna. (All scale lengths 0.5 mm.)

anteriorly and tipped with white; vertex similar to frons but more heavily dusted with white; male antenna (Fig. 45) strongly serrate (almost unipectinate), with several, partially exposed, black spinelike sensilla

along base of shaft; female antenna simple; labial palpus oblique in both sexes (held close to frons in male), fuscous or black dusted with white; maxillary palpus simple, very short in male, white and fuscous. Tho-

rax with collar and dorsum gray usually lightly washed with reddish brown anteriorly and with a few black scales. Forewing for the most part smooth, with a few indistinct patches of slightly raised scales; ground color gray; black subbasal patch (of very slightly raised scales) followed by faint reddish brown or purplish brown patch preceding antemedial line; antemedial line moderately distinct, consisting of white-tipped gray scales, edged with black distally and followed by patch of white-tipped scales; small group of black scales and larger faint, reddish brown to purplish brown patch distad of patch of white-tipped scales; discal spots covered with white and with associated black patch; postmedial line moderately distinct formed of white-tipped gray scales, preceded by thin black line and bordered on distal margin by mixture of black and faint reddish brown or purplish brown scales; underside of wing of male without costal fold and without sex-scaling. Hindwing pale fuscous, darker along veins and wing margins. Male abdominal segment 8 with ventral scale tufts. Male genitalia (Figs. 42, 43) with uncus constricted at base and with distinct lateral protuberances; apical process of gnathos simple, hooklike; transtilla incomplete; juxta with slender setiferous lateral lobes; valva rather broad, with distal posterior part triangular and with small tooth on margin; subbasal lobe well developed, cupped; aedoeagus armed with many, medium-sized, clustered cornuti and one large cornutus; vinculum about 2× as long as greatest width. Female genitalia (Fig. 44) with ductus bursae flattened, mostly sclerotized and longitudinally ridged with proximal part distinctly narrower than distal part, and with cluster of spines and rather large, spine-free sclerotized, thickened platelike element distally; corpus bursae membranous, about as long as ductus bursae, with signum a sinuous loop of small spines; ductus seminalis from corpus bursae near junction with ductus bursae.

Material examined.—♂ (holotype), Independencia, 3 km ESE EI Aguacate, north

slope Sierra de Baoruco, pine woodland (18-18N, 71-42W), 1980 m, 28-29 September 1991, R. D. Y. T., genitalia slide 3674 HHN; 1 ♀ (paratype), La Vega Province, Constanza, 116 m, Hotel Nueva Suiza, 29 May 1973, D. & D., genitalia slide 3857 HHN; 3 ♂ (paratypes), Pedernales, 9.7 km NE Los Arroyos (18-16N, 71-44W), 2070 m, 15-16 July 1990, R. Y. T., genitalia slide 3676 HHN; 1 ♂, 2 ♀ (paratypes), Pedernales, 37 km N Cabo Rojo (18-09N, 71-35W), 1480 m, 21-22 July 1990, Y. R. T.; 3 ♀ (paratypes), Pedernales, 30 km N Cabo Rojo (18-07N, 71-39W), Y. R. T. genitalia slide 3677 HHN; 1 ♀ (paratype), Pedernales, 26 km N Cabo Rojo (18-06N, 71-38W), 730 m, 31 July 1990, R. Y. T.; 3 ♂, 4 ♀; (paratypes), Independencia, 3 km ESE EI Aguacate, north slope Sierra de Baoruco, 1980 m (18-18N, 71-42W), 28-29 September 1991, R. D. Y. T., genitalia slide 3675 HHN.

Discussion.—Males of *Dioryctria postmajorella* have unusual, strongly serrate, almost pectinate, antennae previously known only as occurring on *Dioryctria majorella*. The lateral lobes of the serrate antennae appear to be slightly longer in *D. postmajorella* than in *D. majorella*.

All members of the genus *Dioryctria* feed as larvae on conifers. It is likely that *Pinus occidentalis* Swartz, endemic to the Dominican Republic (Moscoso 1943), is the larval host of *D. postmajorella*.

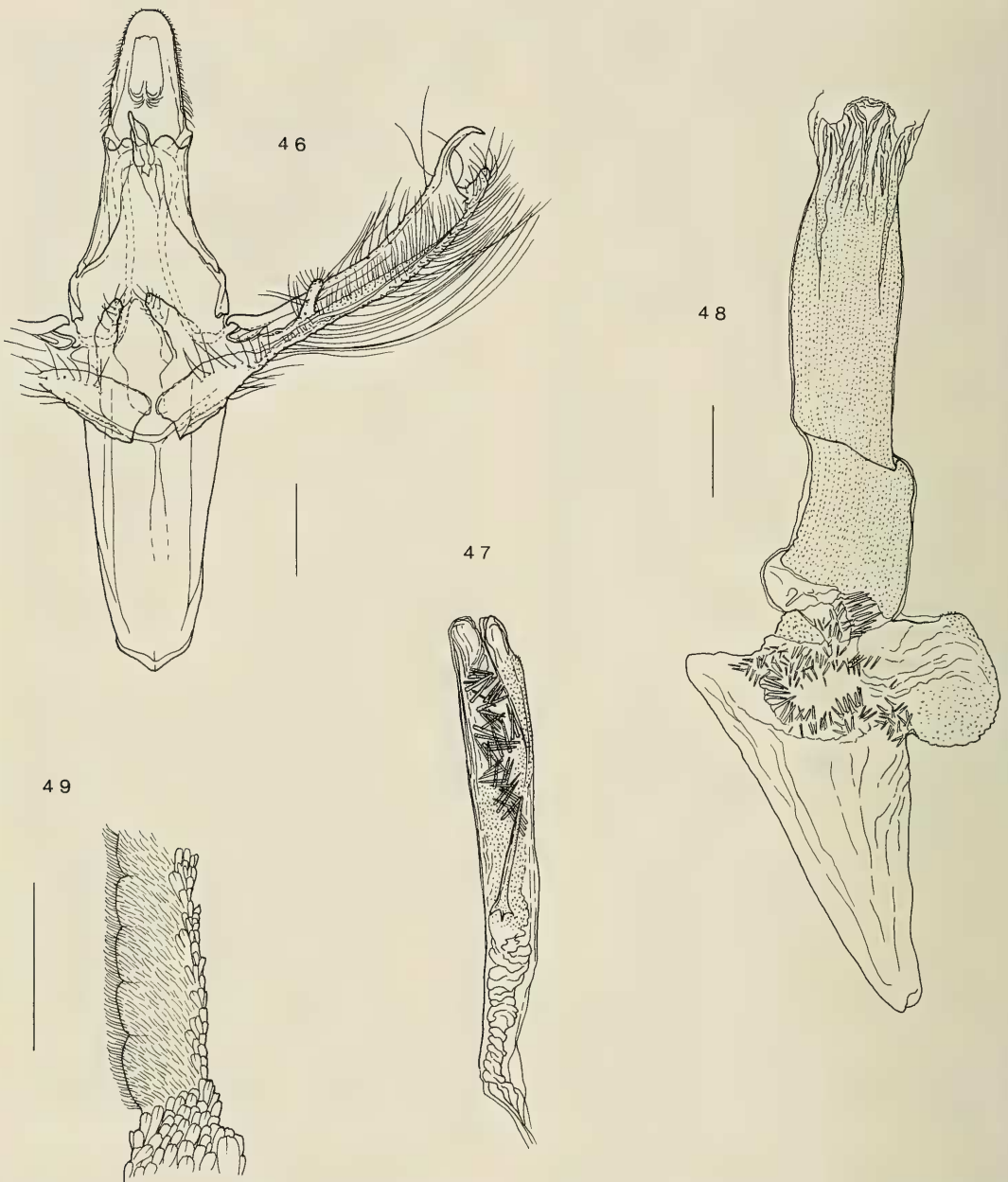
Etymology.—The specific epithet *postmajorella* denotes the close similarity of this species to *D. majorella*.

***Dioryctria dominguensis* Neunzig, new species**

(Figs. 10, 46-49)

Type locality.—Independencia, 3 km ESE EI Aguacate, north slope Sierra de Baoruco, (18-18N, 71-42W), 1980 m, Dominican Republic.

Diagnosis.—*Dioryctria dominguensis* is similar to *Dioryctria merkei* Mutuura and Munroe, but the markings on the forewing are generally more distinct in *D. domin-*



Figs. 46-49. Male antenna and male and female genitalia of *Dioryctria dominguensis*. 46, Male genitalia, aedeagus omitted. 47, Aedeagus. 48, Ductus bursae and corpus bursae. 49, Base of antenna. (All scale lengths 0.5 mm.)

guensis. Also, the postmedial line in *D. dominguensis* is distinctively broadened near the costa.

Description.—Length of forewing 13.5–16.0 mm. Head with frons and vertex fus-

cous dusted with white and washed with reddish brown, white at base of antenna. Male antenna (Fig. 49) with shaft very slightly serrate and with several very short, black thickened, partially exposed, spine-

like sensilla near base. Female antenna simple. Labial palpus oblique in both sexes (held close to frons in male), fuscous, dusted with varying amounts of white and, in some specimens, with a few to moderate numbers of reddish brown scales; maxillary palpus simple, fuscous and white. Thorax collar fuscous and reddish brown, in some specimens dusted with white; dorsum of thorax similar to collar, but usually somewhat darker. Forewing with small basal and subbasal ridge, a patch of raised scales in median area near antemedial line, and weakly raised scales at discal spot and near postmedial line; ground color fuscous; antemedial and postmedial lines white, lightly suffused with reddish brown and fuscous, distinct, edged proximally and distally with black; antemedial and postmedial lines noticeably broadened near costa; subbasal area with white preceding subbasal scale ridge; medial area with mostly white patch distad of black line edging antemedial line, and with additional white near costa and preceding black line at margin of postmedial line; narrow band of white preceding terminal line; extensive reddish brown suffusions at base of wing, and distad of subbasal scale ridge, median scale ridge, and beyond black line proximad of postmedial line; underside of wing of male with narrow line of yellowish brown subcostal sex-scales. Hindwing pale fuscous, darker along veins and wing margins. Male abdominal segment 8 with ventral scale tufts. Male genitalia (Figs. 46, 47) with uncus not distinctly constricted at base, without obvious lateral protuberances; apical process of gnathos simple, hooklike; juxta with robust setiferous, lateral lobes; valva slender with clawlike distal element and fingerlike subbasal lobe; aedoeagus armed with cluster of many small cornuti and one medium-sized cornutus; vinculum about 2× as long as greatest width. Female genitalia (Fig. 48) with ductus bursae flattened, sclerotized, ridged basally, with basal part about as wide as distal part and with distal cluster of spines; corpus bursae membranous, slightly

shorter than ductus bursae, with signum a sinuous loop of small spines; ductus seminalis from corpus bursae near junction with ductus bursae.

Material examined.—♂ (holotype), Independencia, 3 km ESE EI Aguacate, north slope Sierra de Baoruco (18-18N, 71-42W), 1980 m, pine woodland, 28–29 September 1991, Y. T., genitalia slide 3670 HHN; 1 ♂, 2 ♀ (paratypes), La Independencia, 15 km NE Los Arroyos (Pedernales), summit of Sierra de Baoruco, 2260 m, 19 July 1987, D. R.; 1 ♀ (paratype), Pedernales, 9.7 km NE Los Arroyos (18-16N, 71-44W), 2070 m, 15–16 July 1990, R. Y. T.; 4 ♂, 3 ♀ (paratypes), Independencia, 3 km ESE EI Aguacate, north slope Sierra de Baoruco (18-18N, 71-42W), 1980 m, 28–29 September 1991, R. D. Y. T., genitalia slides 3671 HHN, 3672 HHN, 3673 HHN.

Discussion.—As with *Dioryctria postmajorella*, there is a strong possibility that larvae of *D. dominguensis* are associated with *Pinus occidentalis*.

Etymology.—The specific epithet is derived from the type locality (Dominican Republic) and the Latin suffix *-ensis* (denoting place).

***Dasypyga independencia* Neunzig, new species**

(Figs. 11, 50–52)

Type locality.—Independencia, 3 km ESE EI Aguacate, north slope Sierra de Baoruco (18-18N, 71-42W), 1980 m, Dominican Republic.

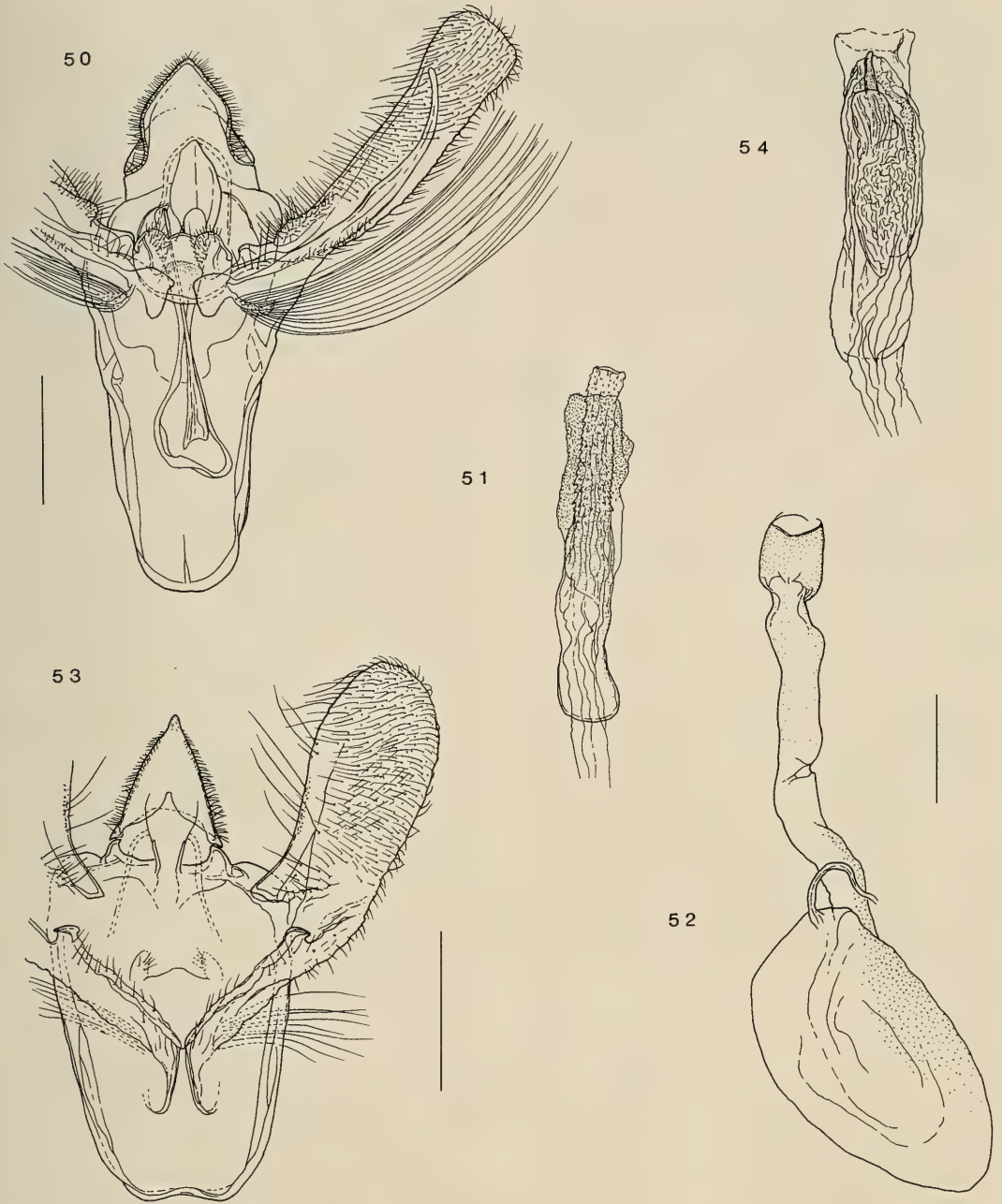
Diagnosis.—The external habitus of *D. independencia* resembles that of *Dasypyga belizensis* Neunzig and Dow. The two species can be most accurately separated by reference to genitalic differences such as the following: males of *D. belizensis* have the spine forming the distal half of the sacculus with a strongly swollen base, and the aedoeagus abruptly enlarged basally on one side, and females of *D. belizensis* have the ductus bursae with obvious sclerotization in the anterior half, whereas males of *D. independencia* have the spine forming the

distal half of the sacculus with only a slightly swollen base, and the aedoeagus is not abruptly enlarged basally on one side, and females of *D. independencia* have the ductus bursae without sclerotization, or with very pale sclerotization, in the anterior half.

Description.—Length of forewing 11.0–12.5 mm. Head with frons rather smoothly scaled, purplish brown washed with reddish brown and ochre; vertex ochre and pale reddish brown to reddish brown; male and female antenna simple; male and female labial palpus upcurved, brownish red with varying amounts of ochre, or red, scales. Male and female maxillary palpus simple, ochre or brownish white. Thorax with collar ochre and brownish red or brownish purple, dorsum of thorax brownish purple and fuscous. Forewing with basal and subbasal area brownish purple lightly dusted with white; posterior half of subbasal area more suffused with purple and with small ridge of white-tipped black scales at wing margin; small basal and subbasal tufts of black, or white-tipped black, scales in median fold; antemedial line indistinct, dark ochre edged distally with dark red, followed by line of black scales (this line of black scales weak or missing near costa and replaced in median fold with black patch of raised scales that extends distally); postmedial line indistinct, ochre and red, deeply angulate between M_2 and M_3 , reaching inward to discal spots (this angulation margined proximally with black or dark red and with associated white line); area between transverse lines mostly brownish purple (red, purplish red or red and ochre near costa), in part dusted with white; remainder of median area mostly reddish brown, ochre and pale purple; discal spots brownish purple, obscure, fused; terminal area brownish purple dusted with white; underside of wing of male without costal fold and sex scaling. Hindwing rather dark, brownish gray. Male abdominal segment 8 with sternite developed as narrow sclerotized pocket. Male genitalia (Figs. 50, 51) with apex of uncus

trilobate; apical part of gnathos undeveloped; transtilla an asymmetrically lobed, tongue-like structure fused with gnathos; juxta a plate with well-developed, knoblike, setiferous lateral elements; base of juxta with associated U-shaped band supporting a long, sclerotized spine (U-shaped band located in part, or entirely in anterior half of vinculum); valva with distal margin approximately perpendicular (not oblique) to costa of valva; valva with sacculus strongly sclerotized and developed in distal half into a long, slender curved spine (spine with only a slightly swollen base); aedoeagus apically toothed for about 1/2 its length, and with slightly enlarged base; pair of setal tufts from intersegmental area adjacent to outer surface of sacculus at base; vinculum longer than greatest width. Female genitalia (Fig. 52) with collar of eighth abdominal segment with ventral lobes narrow near meson; ductus bursae sclerotized and inflated for about one-fifth its length from ostium bursae; remainder of ductus bursae without sclerotization or with very light sclerotization, and without sclerotized ridges; corpus bursae membranous, in part finely scobinate, without signum; ductus seminalis from corpus bursae near junction of ductus bursae and corpus bursae.

Material examined.—♂ (holotype), *Independencia*, 3 km ESE EI Aguacate, north slope Sierra de Baoruco (18-18N, 71-42W), pine woodland, 1980 m, 28–29 September 1991, R. D. Y. T., genitalia slide 3667 HHN; 6 ♂, 2 ♀ (paratypes), La Vega Province, Constanza, 1164 m, Hotel Nueva Suiza, 29 May 1973, D. & D., genitalia slides 3836 HHN, 3837 HHN; 1 ♂, 1 ♀ (paratypes), Pedernales, 8 km NE Los Arroyos (18-16N, 71-44W), 1940 m, 14 July 1990, R. Y. T., genitalia slide 3778 HHN; 1 ♂ (paratype), Pedernales, 9.7 km NE Los Arroyos (18-16N, 71-44W), 2070 m, 15–16 July 1990, R. Y. T., genitalia slide 3669 HHN; 1 ♀ (paratype), Pedernales, 5 km NE Los Arroyos (18-15N, 71-45W), 1680 m, 17–18 July 1990, Y. R. T.; 1 ♀ (paratype), Pedernales, 37 km N Cabo Rojo (18-09N,



Figs. 50–54. Male and female genitalia. 50, *Dasypyga independencia*, aedoeagus omitted. 51, *D. independencia*, aedoeagus. 52, *D. independencia*, ductus bursae, corpus bursae, and ductus seminalis. 53, *Lascelina pedernalensis*, aedoeagus omitted. 54, *L. pedernalensis*, aedoeagus. (All scale lengths 0.5 mm.)

71-35W), 1480 m, 21–22 July 1990, Y. R. T.; 1 ♀ (paratype), same collection data as holotype, genitalia slide 3668 HHN.

Discussion.—Heinrich (1920, 1956) pub-

lished on the biology of *Dasypyga alternosquamella* Ragonot, a North American species, and stated that the larvae feed on *Arceuthobium (Razamofsky) cryptopodum*

Engelmann (Loranthaceae) growing on pine and spruce. The mistletoe *Arceuthobium bicarinatum* Urban occurs in the Dominican Republic (Moscoso 1943), hence the larval food of *D. Independencia* is probably mistletoe.

Etymology.—The specific epithet is based on the type locality (Independencia).

***Lascelina pedernalensis* Neunzig, new species**

(Figs 12, 53, 54)

Type locality.—Pedernales, along Rio Mulito, 13 km N Pedernales (18-09N, 71-46W), 230 m, Dominican Republic.

Diagnosis.—The male genitalia with their reduced gnathos and general habitus place *pedernalensis* in *Lascelina*. The male antenna, particularly the presence of an anteromesial cluster of scales at the sinus and the scalelike sensilla distinguish *pedernalensis* from the only other species in the genus, *L. canens* Heinrich.

Description.—Length of forewing 6.0–6.5 mm. Head with frons pale brown and brownish white suffused with black; vertex similar to frons but with few or no black scales. Male antenna with sinus and strong anteromesial and posterolateral scaletufts at base of shaft, and with group of short, setalike sensilla at base, and at apical end, of sinus; labial palpus white, black, brownish red and/or pale brown; maxillary palpus same as labial palpus. Thorax collar pale brown with a few darker scales anteriorly; dorsum of thorax similar to collar. Forewing mostly white on costal half, shaded with pale brownish or ochre on posterior half; a few scattered brownish red scales, and patch of black scales, at base of wing; antemedial line not particularly evident, blending with general white color of wing, its distal border vaguely delineated by black patch on costal half that is pale brown or ochre on posterior half; median area with thin black costal patch; discal spots black, separate, weakly developed; postmedial line indistinct, margined by discontinuous black lines or patches proximally and distally; un-

derside of wing of male without costal fold and sex-scales. Hindwing pale fuscous, darker along veins and near wing margins. Male genitalia (Figs, 53, 54) with uncus triangular; gnathos with its apical process greatly reduced; transtilla absent; juxta with short, sparsely setiferous, lateral arms; valva rather broad and short, with inner, slightly hooked lobe and basal tuft of slender scales on sacculus; aedoeagus rather short with spined element and scobinations; vinculum about as long as greatest width. Female unknown.

Material examined.—♂ (holotype), Pedernales, along Rio Mulito, 13 km N Pedernales (18-09N, 71-46W), riparian woodland, 230 m, 17 July 1992, R. T. Y. D., genitalia slide 3692 HHN; 1 ♂ (paratype), Pedernales, 9.5 km N Cabo Rojo (18-02N, 71-39W), 35 m, 19 July 1990, R. Y. T., genitalia slide 3979 HHN; 1 ♂ (paratype), Pedernales, 1 km W Cabo Rojo (17-55N, 71-39W), 10 m, 30 July 1990, Y. R. T.

Discussion.—Although the male genitalia of *L. pedernalensis* and *L. canens*, the type species of *Lascelina* Heinrich, are similar, I have some misgivings about placing *pedernalensis* in *Lascelina*, because of obvious differences in the male antennae of the two species. In *L. pedernalensis* the antenna has the segments of the shaft at the sinus distinctly broadened and covered anteromesially with a distinct cluster of scales and two groups of short, setalike sensilla within the sinus, whereas in *L. canens* the antenna does not have the segments of the shaft at the sinus broadened, the anteromesial edge of the sinus is not covered with a cluster of scales, and the sensilla associated with the sinus are robust and spinelike. Nevertheless, because of the appearance of the male genitalia of *L. pedernalensis* and *L. canens*, and inasmuch as no females of *L. pedernalensis* are available for study, it seems, at this time, best to place *L. pedernalensis* in *Lascelina*.

Etymology.—The specific epithet is derived from the type locality (Pedernales)

and the Latin suffix *-ensis* (denoting place, locality).

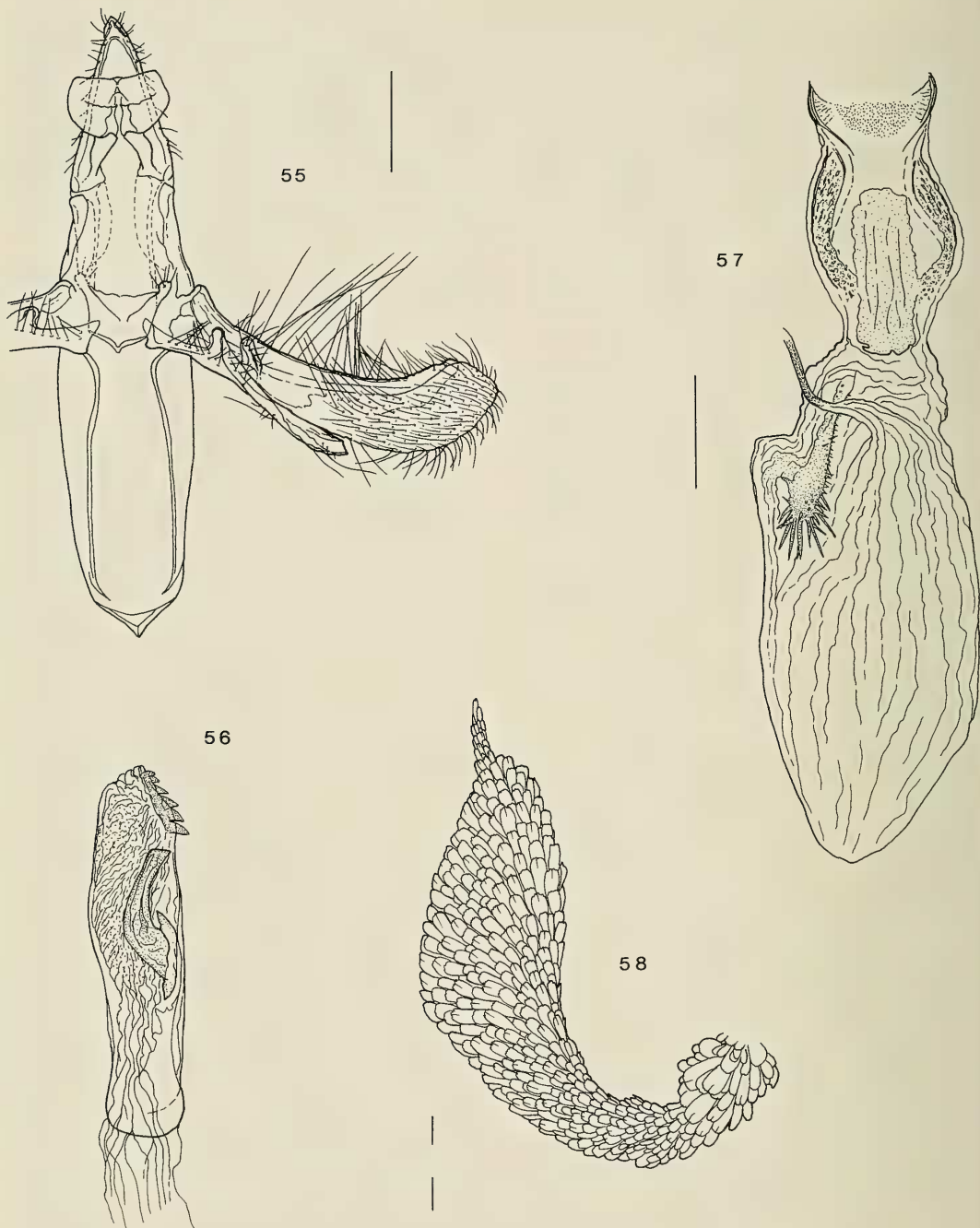
***Zamagiria rawlinsi* Neunzig, new species**
(Figs. 13, 55–58)

Type locality.—Azua, east side of crest Sierra Martin Garcia, 7 km WNW Barrero (12-21N, 70-58W), 860 m, Dominican Republic.

Diagnosis.—The male of *Z. rawlinsi* has an elongate-oval, convex structure on the upper, basal half of the forewing with an associated concavity and tuft of sex-scales on the underside. Many phycitine males have sex-scales on the underside of the forewing, usually located along the costa of the wing, and occasionally elsewhere on the wing, but the only other phycitine that I am aware of that has a tuft of sex-scales located in a position similar to that seen in *Z. rawlinsi* is *Anecephalesis arctella* Ragonot. The sex-scales of *arctella*, however, do not have the additional elongate-oval structure present in *Z. rawlinsi*.

Description.—Length of forewing 11.5–13.0 mm. Head of male with frons and vertex grooved and with tufts of brown and reddish brown scales arising from anterior of frons, posterior of vertex brownish red; head of female with frons and vertex simple, fuscous or pale brown dusted with white; antenna of male with basal sinus in shaft, covered by strongly developed scale tufts; antenna of female simple; labial palpus of male upcurved (Fig. 58), segment 1 white basally, segment 2 long, concave on inner surface to hold maxillary palpus, fuscous and/or reddish brown dusted with white (some specimens also with a few black scales), segment 3 small, color of segment 2; labial palpus of female upcurved, fuscous dusted with white (some specimens also with a few brownish red scales); maxillary palpus of male with scaling aigrette-like, dark pink; maxillary palpus of female, simple, fuscous and white. Thorax with collar of male purplish brown to reddish brown (with brownish red or black scales in some specimens); dorsum of thorax of male pur-

plish brown or fuscous washed with brownish red posteriorly; male with lateral part of thorax (particularly near base of wing) and dorsolateral aspects of base of abdomen red or brownish red (this feature easily seen with the unaided eye); collar and dorsum of thorax of female fuscous or reddish brown dusted with white. Forewing with ground color fuscous or dark brownish purple; male with median and terminal areas moderately dusted with white and with approximately basal 1/3 of wing dark; female with wing more uniform, generally, moderately dusted with white; subbasal ridge of mostly black, raised scales; male with black, elongate-oval convexity bisecting scale ridge; antemedial line white, rather indistinct (particularly in male), bordered distally with black; postmedial line white, moderately distinct; discal spots moderately distinct, black, fused; scattered reddish brown or purplish brown scales over most of wing and usually some patches or groups of reddish brown or purplish brown scales; underside of wing of male with strongly developed patches of red or brownish red scales at base and along about one-third of costa, and with elongate-oval cavity containing brownish white scale tuft. Hindwing pale fuscous, darker along veins and margins of wing; underside of wing of male with strongly developed patch of red or brownish red at base. Male abdominal segment 8 with ventral scale tufts. Male genitalia (Figs. 55, 56) with uncus triangular; apical part of gnathos with broad platelike element; transtilla absent; juxta sclerotized, platelike with divergent setiferous lateral arms; valva broadest towards apex with costal margin concave, sacculus about one-half length of rest of valva, more or less straight, pointed; aedoeagus with row of thornlike spines towards apex and large curved cornutus; vinculum longer than greatest width. Female genitalia (Fig. 57) with ductus bursae enlarged basally and much of remainder of ductus bursae also enlarged into second more anterior bulge; both broadened parts well sclerotized, es-



Figs. 55-58. Male and female genitalia and male labial palpus of *Zamagiria rawlini*. 55, Male genitalia, aedeagus omitted. 56, Aedeagus. 57, Corpus bursae, ductus bursae and ductus seminalis. 58, Labial palpus. (All scale lengths 0.5 mm.)

pecially laterally; corpus bursae membranous with strongly spined elongate signum in posterior of corpus bursae; ductus seminalis from about middle of corpus bursae.

Material examined.—♂ (holotype), Azua, east side of crest, Sierra Martin Garcia, 7 km WNW Barrero (18-21N, 70-58W), 860 m, cloud forest adjacent to disturbed forest, 25–26 July 1992, Y. D. T. R., genitalia slide 3683 HHN; 1 ♀ (paratype), La Vega Province, Constanza, 1164 m, Hotel Nueva Suiza, 29 May 1973, D. & D., genitalia slide 3890 HHN; 1 ♀ (paratype), Pedernales, 26 km W Cabo Rojo, 760 m, 17 July 1987, R. D.; 1 ♀ (paratype), La Independencia, 15 km NE Los Arroyos (Pedernales), summit of Sierra de Baoruco, 2260 m, 19 July 1987, D. R.; 1 ♀ (paratype), Pedernales, 9.7 km NE Los Arroyos, 2070 m, 15–16 July 1990, R. Y. T.; 8 ♂, 15 ♀ (paratypes), Pedernales, 5 km NE Los Arroyos (18-13N, 71-45W), 1680 m, 17–18 July 1990, Y. R. T., genitalia slides 3681 HHN, 3682 HHN; 1 ♀ (paratype), Independencia, Sierra de Neiba just south of crest, 5 km NNW Angel Feliz (18-41N, 71-47W), 1780 m, 13–15 October 1991, R. D. Y. T., genitalia slide 3680 HHN; 1 ♂ (paratype), Independencia, Sierra de Neiba near crest, 5.5 km NNW Angel Feliz (18-41N, 71-47W), 1750 m, 21–22 July 1992, R. T. Y. D., genitalia slide 3679 HHN; 2 ♂ (paratypes), same collection data as holotype; 1 ♂ (paratype), La Vega-Monsenor Nouel, Loma El Casabito, summit (19-03N, 70-31W), 1390 m, cloud forest, 19–23 November 1992; R. K. D. T.; 1 ♀ (paratype), Puerto Plata, Pico El Marazo, north slope near summit (19-41N, 70-57W), mesic deciduous forest, 910 m, 28 November 1992, R. D. K. T., genitalia slide 3684 HHN.

Etymology.—*Zamagiria rawlinsi* is named to honor John E. Rawlins (CMNH) whose efforts in extensively collecting Lepidoptera in the Dominican Republic, and whose enthusiastic assistance in providing specimens for study, have, in large measure, made this study possible.

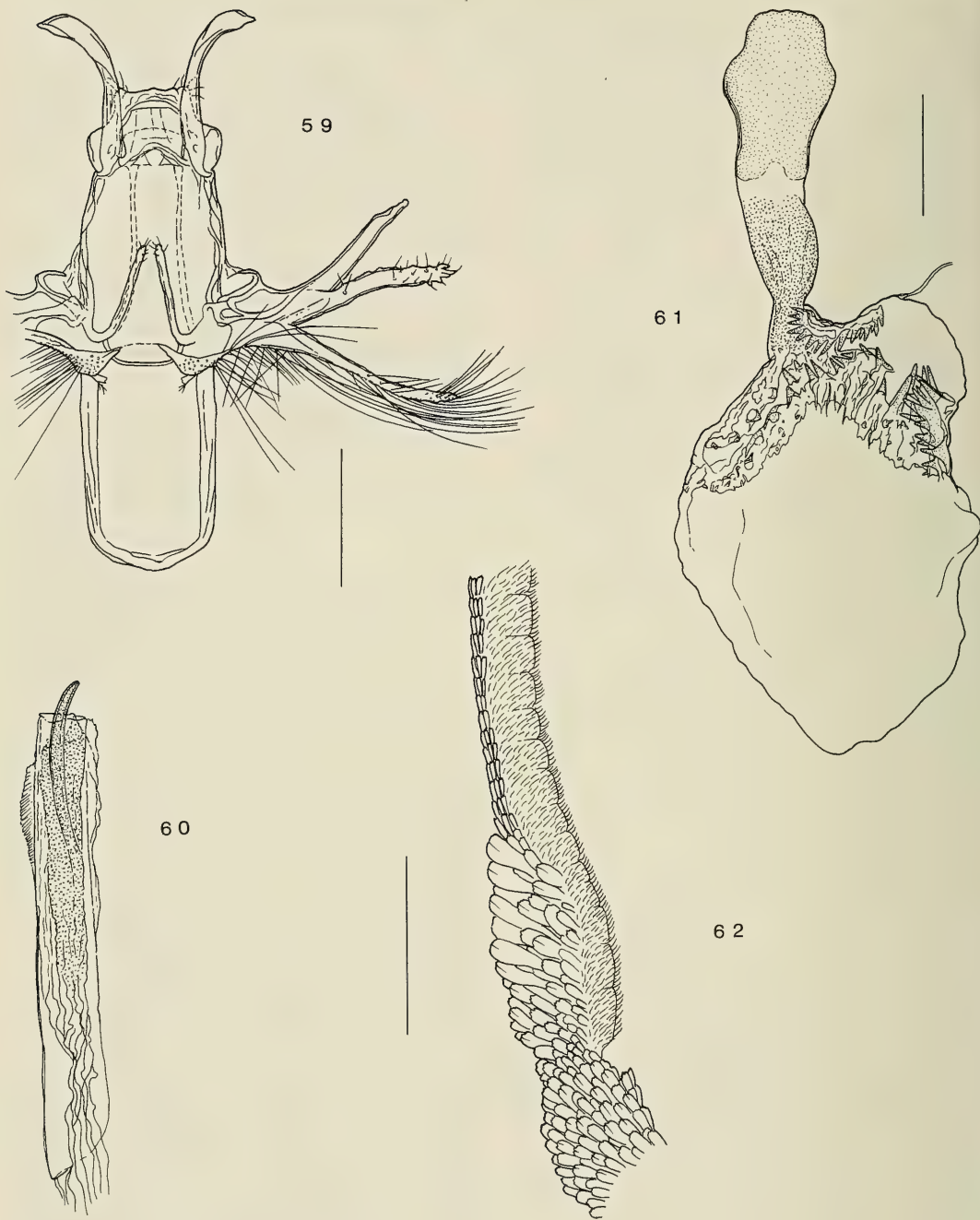
Caristanius tripartitus Neunzig, new species

(Figs. 14, 59–62)

Type locality.—La Vega Province., Hotel Montana, ca. 520 m, 10 km NE Jarabacoa, Dominican Republic.

Diagnosis.—The appearance of the tripartite valva of the male genitalia (Fig. 59) is diagnostic. Other *Caristanius*, including the Caribbean *C. pellucidellus* (Ragonot), have the male valva divided into three parts, but the parts are not as similar to each other in size and shape as in *C. tripartitus*.

Description.—Wing length 10.0–11.0 mm. Head with frons pale brown dusted with white; vertex similar to frons (in female with faint reddish brown between antennae); male antenna (Fig. 62) with sinus and stout scale tuft on base of shaft; labial palpus pale brown to brown dusted with white; thorax with collar and dorsum pale brown and pale reddish brown to brownish red (with a very few black scales in male, and lightly dusted with white in female). Forewing with ground color pale brown to brown; most of wing moderately dusted with white, particularly in costal half, and with scattered obscure pale reddish brown scales; elongate patch of pale reddish brown or ochre on basal and subbasal inner half, and patch (or patches) of black on subbasal inner half; antemedial line white, very indistinct, its distal margin somewhat delineated by fragmented, irregular, black line; pale, elongate, reddish brown patch following antemedial line on inner half; discal spots fuscous to black, obscure; postmedial line difficult to detect; underside of wing of male without costal fold and sex-scaling. Hind wing pale fuscous. Male genitalia (Figs. 59, 60) with uncus having at ventrolateral angles pair of robust, outwardly curved sclerotized arms; gnathos absent; transtilla absent; juxta with slender, setiferous lateral lobes; valva divided longitudinally into three, slender, approximately equal-sized elements; costal element well sclerotized, without setae; middle element



Figs. 59-62. Male and female genitalia and male antenna of *Caristanius tripartitus*. 59, Male genitalia, aedeagus omitted. 60, Aedeagus. 61, Corpus bursae, ductus bursae and ductus seminalis. 62, Base of antenna. (All scale lengths 0.5 mm.)

with short setae arising individually from small tubercles; most anterior element (? sacculus) with many long setae; aedoeagus with slender, slightly curved cornutus; vinculum longer than greatest width. Female genitalia (Fig. 61) with ductus bursae distinctly broadened and strongly sclerotized in posterior half and with many scobinations in anterior half; corpus bursae membranous with large, elongate, curved, sclerotized and coarsely spined plates; ductus seminalis from corpus bursae near junction with ductus bursae.

Material examined.—♂ (holotype), La Vega Prov., Hotel Montana, ca. 520 m, 10 km NE Jarabacoa, 28 May 1973, D. & D., genitalia slide 3860 HHN; 1 ♀ (paratype), same collection data as for holotype, genitalia slide 3861 HHN.

Discussion.—Other *Caristanius* spp. feed as larvae on the leaves of species of *Cassia* (Fabaceae) (Heinrich 1956; Neunzig 1977, 1979). Thirty-eight species of *Cassia* occur in the Dominican Republic (Moscoso 1943) and one or more may serve as food for larvae of *C. tripartitus*.

Etymology.—The specific epithet is derived from the Latin *tri-partitus* in reference to the evenly divided, tripartite condition of the male valva.

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